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IN THE
Circuit Court of the United States

For the Southern District of New York.

IN EQUITY

AMERICAN BELL TELEPHONE COMPANY, *et al.*

vs.

PEOPLES' TELEPHONE COMPANY, *et al.*

RESPONDENT'S BOOK OF EXHIBITS.

EXHIBIT FETTROW ACCOUNT.

(Printed record, page 370.)

(Page 19 of first book.)

"1868 D. DRAWBAUGH, DR. D. Fettrow

			$	cts.
April	21	to 18 Counter Sing Bolts	1	37
	23	to 1 Bushel Coal		25
		to 1 hog	4	00
	24	to rived stafe nife		40
		to 16 set Bolts	1	68
	28	to 2 burs, cuting welting bolts		10
May	1	to 15 lbs hinches and bolts	2	10
	4	to 13½ lbs hinches	1	89
	6	to 4 burs		15

	7	to iron & Blates at Nail Cuter	3 25	
	11	to 1 Set Bolt	15	
	19	to 39 lbs of Cole	19	
	23	to Cassteel for hamer	65	
		to 297 lbs old iron at 2½ cts		7 42
		to 1 Dollar Cash	1 00	
	27	to 12½ lbs iron for Braces at Cuter	1 55	
		to riven stafe nife	40	
June	1	to riven stafe nife	40	
	2	to 23 lbs of iron from town	1 03½	
		to Casterrating 1 hog	10	
	16	to 2 Casteel Blates for Nipers	60	60
Aug	17	to 1½ lb of iron	38	
	18	to 16 bolts	1 40	
		to 3 Set Bolts	30	
	25	to 6 Bolts & nuts	60	
	28	to 1 peace iron	25	
Sep	7	to 4 Bolts	45	
Sep	7	to riven 2 Steafe nife 5 lb of iron	1 05	
	14	to 4 Bolts	40	
Oct	7	to 5 Spoute irons	1 25	
		to Cash	1 00	
		to 3 lbs of Buter	1 35	
		to 2 lbs of lard	40	
		to Cash to Elen	50	
Jeny	6	to iron for fat Bress	60	
Feb	9	to 15 Meat hooks	45	
			37 59	
Mar	27	to Cash	5 00	
		to Cash By Bitter row	5 00	
		to Cash	2 00	
		to 13½ iron page 27	10	
			43 69	43 69

(*Account is continued on page* 27 *as follows.*)

D. Drawbaugh.

		forwart page 19	43 69	
Ap	26	to 1½ lb Casteel	60	

May	1	to Iron	50	
		to Cash	2 00	
		to Cash H. Drawbaugh	2 95	
	13	to 10 lb for manares 2 Burs fixing Blate for Saw	1 80	
	27	to 4 lb iron 1 Steel tougf Nail Cuter	75	
	28	to 1½ lb iron Nail Cuter	15	
	29	to 1 Steel Spring Nail Cuter	20	
		to 1 load railes	2 00	
		to Cash	5 00	
Jun	9	to 1 peace iron	25	
	25	to riven Stafe Nife	40	
July	13	to 1 iron for reper	60	
Octo	20	to 2 ring for Gas Bipe	50	
			61 29	61 29

(*Bottom of page* 27.)

(*Page* 35 *continues as follows.*)

D. Drawbough.

			$ cts	
		forwart Page 27	61 29	
No	5	to 1 P Cass Pipe tongs	1 50	
	11	to 6 Washer	20	
	12	to 18 lbs iron at 5 cts		90
	13	to 4 Bolts	40	
	17	to Cretit By 4½ lbs. Casteel		1 12
	27	to Bracing hook for Stef Cuter	10	
De	14	to 19½ of iron		97
	20	to 1 Gas tap	1 50	
		to 2½ lb Casteel		69
		to fixing Cas tap of hauck	50	
	31	to 1 lb 14 ouz Casteel		47
Jany	31	to 1 kee for Eberly	25	
		to 1 Screw for S Zinn	60	
		to 1½ lb Casteel		37
		to iron a Slay for S Zimmerman	10 00	

Feb	9	to 15¾ Casteel			3 93
		Pate to Cle Dra (blot)	17	73	
			94	07	
		to iron Wagon Bet S Zinn	4	00	
		to 1 Saw frame S Zinn		50	
		By Cash in Shop	1	50	
		to money lent to go to Carlisle Nail Machine Bill	35	75	
		to 6 lb Casteel			1 50
		to 1 Barl of flower	6	00	
		to 1 load rails	2	00	
May	23	to 1 Peace iron S Zinn		50	
		to 1 Barl flower	6	50	
		to ½ Bushel Potatos		25	Paid.
		to Cash		50	
		to 1 Bushel Potatos		50	
		to 1 load wood	1	50	atrill.
Sep	26	to Peacing rod for lee		25	2 25
Octo	9	to 1 iron Nail Cuter Pait	2	00	
	15	to 37 lb iron Stefe Cuter	5	18	

(*End of Page* 35.)

(*Top of page* 25 *in Second Book.*)

1870		D. Drawbaugh.		161	00
Octo	21	to 2 spring Cuter		50	
	24	to 6 lb Spring Cuter	1	00	
	28	to 6¾ lb iron 1 Spring Cuter	1	75	
No	2	to 3 gass Pipe tungs	4	60	
		to 12¾ lb Beef at 11 cts	1	40	
	18	to 3 iron Cuter	1	00	
		to Black Smith Cole		28	
De	5	to 25 Pipe tungs	3	07	
Jany	2	to 2 kees		25	
		to Pate Ditlow		85	
		to 12 lb Beef at 11 cts	1	32	
		to 14½ lb of lart at 16 cts	2	32	

		to 1 hed 1 Nut for Wice		75	
		to Cash	27	00	
Mar	24	to Paid to Zinn	44	15	
		to rose Bit	1	25	
Mar	24	to Settel in full up to Date	252	49	252 49

Mar	24	Barrers on a Bove Settlement	6	68	
	25	to 8 Bolts 8 nuts for N Cutter		50	
	28	to 8 Bolts 4½ lb iron N Cutter		90	
	31	to 4 lb iron N Cutter		25	
Ap	7	to 4 burs N Cutter		10	
	17	to 2 rings on ram		25	
	26	to Welting iron N Cutter		75	
		to 1 load Wood	1	50	
		to Cash		50	
		to Cuting			75
May	4	to 3½ lb iron 3 Bolts		60	
	9	to 18 lbs iron	2	16	
	10	to rived 2 irons Neife		80	
		to 1 load wood	2	00	
	17	to 4¾ lb iron		25	
		to 6 Bolts		70	
	22	to 2 Springs & bur		60	
June	12	to 1 Spring fixen Pitman reper		50	
	16	to forging Screw Bleat		50	
	28	to 1 Brace for lee		75	
		to 1 rose Bit		75	
		to 7 lbs Weal			
		to ½ Bushel Potato	1	00	
		Settel in full	21	54	21 54

(*End of page* 25, *Second Book.*)

(*Top of page* 50, *Second Book.*)

D. Drawbaugh.

Amount forward Pag 25	21	54

July	4	to 5 lb iron		30	
		to 3 Pump iron		75	
	17	to 1 ring		25	
Aug	4	to 4 Stefe Nifes		3 00	
		to Cash		50	
	21	to 2 re		25	
	29	to 1 rase Bit Nail Cuter		1 25	
		to 8 Bolts		80	
Sep	19	to Nail Cuter iron	Cutter	5 80	
		1 geg Coal		15	
Octo	2	to 1 ring		25	
	11	to 2 Bolts	Cutter	25	
	11	to 5½ lb iron	Cutter	27	
		to 1 Cord wood		3 50	
	16	to 1 Steel Spring	1 ring row	1 50	
No	7	to 2 Chisel		25	
De	4	to Cash		1 05	
		to 40 lbs lard		4 80	
	8	to Cole & Holing		6 73	
		to Cash		1 00	
	15	to 13½ lbs Beef at 8 cts		1 08	
		to Cash		50	
Jeny	5	to 1 Colar at Spindel		3 00	
		to 3 ring & iron for Bush		3 00	
	19	to 1 Colar an Spindel		2 00	
Feb	6	to iron Sleage		75	
		to 2368 lb Cole & holing		4 13	
		to 33 lb Casteel Steel		63 96	
		By kutz		1 25	
				1 25	
1872.				72 47	72 47
Ap	27	Settel in full up to Date			

(*End of Page* 50, *Second Book.*)

(*Top of Page* 78, *Second Book.*)

D. Drawbaugh.

1872			
Ap	27	to Due on Settlement	6 00

		to 7 lbs of Weal	.84	
		to 1 load rails	2 00	
		to Steel & iron for lee	50	
		to 2 Bolts & Seet Potatos Blands	85	
		to Buting in Wagon Boxes		1 00
June	7	to Dres Gass pipe tung	30	
		to new gas tung	2 25	
July	1	to iron for liting rod	50	
		to Cash	1 00	
	31	to Cuting iron for Screw	75	
		to 1 load Wood	4 00	
Aug	1	to Weltig Colar for Eetter	2 50	
	14	to 2 ring on Silender Pres	50	
	21	to 2 heads on Screws Pres	2 50	
		to Bolts & iron Pres	50	
	27	to iron Pres	25	
	30	to 2 ring Blats Welty rods Pres	1 00	
		to Holing lumber Musser	3 00	
		to 1 Pare Shoes	3 00	
Octo	28	to 1 iron 3 bolts & burs	75	
No.	1	to 3 Spicks	25	
	20	to forgin Blate ½ lb Nails	60	
		to 122 lb Beef	10 98	
		to Cash	2 00	
		to 7 lbs Casteel		1 71
		to 1 hook	15	
Jeny	4	to 17 lbs Bolts & burrs Lee	2 55	
		to forging 2 taps	50	
	13	to Peacing Shaft I free	50	
Feb	1	to fixing Gas tung	50	
	8	to a bill J. Sadler	3 25	
		to Cash	2 00	
	11	to 1 roler	2 00	
	19	to iron for Hake	25	
		to fixing shovel	75	
		to 1 load wood Gorgas	3 50	
			62 77	

		Cash		11 00	
		to 2 bushel Potatos		1 20	
		to 21½ lb Ham at 15 cts		3 33	
Ap	18	to 1 bur for lee and Cash		20 10	Settel in
		to 2 Bolts		10	full.

(*End of page* 78, *Second Book.*)

(*Page* 77, *Second Page.*)

1873		D. Drawbaugh.	98 40	
May	1	to 5 Bolts	50	
	8	to iron & Bolts lee	35	
	9	to 1 lack Weal & Cash	3 25	
	27	to Pomp iron	1 00	
June	18	to mentg Spring	25	
		to Cash	2 25	
July	18	to irong mentg Car to 1 Bolt geter	1 10	
		to 46 lb lard	4 60	
	23	to irn & steel	75	
Aug	7	to fixg Drawenife	25	
Sep	20	to (illegible) plow 2½ iron & Brass	2 85	
		Cash Holtzinger	2 00	
		Cash	1 00	
De	9	2 Bands fr ram Neidick	50	

Settel in full

(*Bottom of Page* 77.)

(*Top of page* 115, *Second Book.*)

D. Drawbaugh.

		forward Page 78	119 05	
No	17	1 Screw bur & Coll	45	
	18	to 152 lb Beef at 9 cts	13 68	
		to Cash	2 50	
		to 97 lb Beef at 9 cts	8 73	
Feb	7	to 1 Blate	10	
	19	to iron for	50	
		to ½ bushel Cole	18	
March	5	to Peacing manal	50	
	10	to Cash	2 00	
		to 2 iron for houck	75	

	12	to rings on bully		40	
	17	to 1 lever iron for hauck		50	
		to holing lumber	Muser	3 00	
				152 32	152 32
1874					
Ap	1	Settel in full to Date			

(*End of entries on page* 115, *Second Book.*)

(*Top of page* 133, *Second Book.*)

1874 D. Drawbaugh.

Ap	29	to Cuting out Saw Blate		75	
		to 2 bushel Potatos		1 20	
May	25	to 5 Bolts	lee	50	
June	10	to menting Shaft	lee	50	
	13	to 1 pin in reper		20	
	18	to burr 1 ring 1 iron		25	
	22	to 1 geg Cole		15	
		to 1 pin		25	
July	17	to 1 iron	Comfert	50	
Aug	28	to Pump iron		1 25	
		to 5 Bushel Potatoes		5 00	
Octo	2	to 13½ lb roods		1 25	
		to 1¼ load wood		5 00	
	12	to 2 iron 3 Bolts		40	
		to Cash		2 00	
	15	to 34 lbs Choper iron rife		6 65	
		to 198 lbs Beef at 9 cts		17 82	
De	19	to 1 Shoe	Braner	40	
Jeny	16	Cash		2 00	
Feb	13	to 1 Bit 1 iron		50	
		to 1 Bucket Smiths Cole		10	
		to Cash		15 00	
				62 67	

March	22	to Cash	5 00	70
			1 00	1 20
			90	32
			69 57	2 22
				67 35
Ap	5	Settel in full		69 57

(*Last entry on page* 133, *Second Book.*)

(*Top of Page* 157, *Second Book.*)

1875 D. Drawbaugh.

Ap	12	to 1 iron lee	25	
		to Cash	2 00	
May	13	to 1 shaft renard	25	
		to 2 Bushel Potatos	2 00	
		to 250 Sweet Potatos Plants	75	
		to 1 load Lumber	1 75	
June	3	to 1 Bolt lee	20	
		to 1½ Cart Wood	5 00	
		to 2½ Bushel botatos	2 60	
July	6	to 13¾ lbs lard	2 47	
Sep	22	to 2 P hinches	1 00	
Octo	28	to Cash	2 25	
No	1	to 20 bushel Corn	10 00	
	5	to 1 Cord wood	4 00	
	9	to 125 lbs Beef at 11 cts	13 75	
	17	to paid to T. P. Sweney	5 62	
Feb	14	to Steel & iron for reper Wever	1 50	
	22	to 1 lb of buter	35	
	29	to menting brace knife & Chisel	25	
Mar	10	to peacing rood 4 iron 1 hoop	70	
	17	to pait to H. W. Zimm	1 90	
	28	Settel in full	58 59	58 59

I certify that the foregoing is an accurate copy of the entries upon the several pages of the two account books referred to by Daniel Fettrow in his direct examination, in his answer to question 68, on the 19th day of May, 1882.

FRED M. OTT,
Examiner.

AMERICAN BELL TELEPHONE COMPANY, -18

"HAMACHER EXHIBIT." (*Boy's Page.*)

(Printed Record, page 394.)

LOWER ALLEN DISTRICT.

Report of ROBERT STRONG, Teacher of Cedar Spring School.

Number of Pupils	NAMES OF PUPILS.	Age.	ATTENDANCE. DAYS OF THE MONTH.																							Number of days attended.	Number of days belonged.	Total attendance for term.	Progress	Conduct.
			Thursday 13	Friday 14	Monday 17	Tuesday 18	Wednesday 19	Thursday 20	Friday 21	Monday 24.	Wednesday 25	Friday 26	Friday 27	Monday 28	Monday 31	Wednesday 2	Thursday 3	Friday 4	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11	Monday 14							
1	Creordin Leonard,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			22	22	110	1	2
2	John Horst,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			22	22	82	3	3
3	Henry Kauffman,	..	..	..	x	..	..	x	x	x	..	..	x	..	..	..	x	x	x	..	..	x	x	..			12	22	37	2	1
4	Miles Konn	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			22	22	92	1	2
5	Elmer Drawbaugh	..	..	..	..	..	..	..	x	..	..	..	..	..	..	x	..	..	..	x	..	..	..	..			19	22	99	2	2
6	Henry Drawbaugh	..	..	..	..	..	..	..	..	..	..	x	..	..	..	..	..	..	x	..	x	..	..	..			19	22	107	1	2
7	Joseph Eshleman	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..			22	22	92	1	1
8	Charles Miller	..	..	x	..	x	..	x	x	x	..	..	x	x	x	..	..	..	x	x	x	..	..	x			11	22	71	2	2
9	Albert Reanard	..	..	..	..	..	..	..	..	..	..	x	..	..	..	x	..	x	..	x	..	x	x	..			16	22	87	2	2
10	David Ahl	..	Attending Institute	..	x	..	x	..	x	x	..	..	..	x	..	..	..	..	x	..	..	..	..	..			16	22	54	1	1

MISCELLANEOUS STATISTICS.

TOTALS AND AVERAGES.	Males.	Females.	Total.	No. Classes.
No. of different scholars belonging to school since 1st of June till date	22	28	50	..
No. who have attended other schools in the district since June 1st	18	23	41	..
Whole No. in attendce during mo	14	23	37	..
Average attendance during mo	79	82	81	..
Av. attendnce during term till date	75	78	78	..
Per cent of attendance during mo	..	..	..	..
Pr. ct. of att. during term till date	..	..	..	..
BRANCHES OF STUDY.				
Alphabet	..	..	..	..
Spelling	22	28	50	4
Reading	22	28	50	6
Writing	15	16	31	1
Mental Arithmetic	18	20	38	4

| | | |

AMERICAN BELL TELEPHONE COMPANY, -18

RESPONDENTS' BOOK OF EXHIBITS.

"HAMACHER EXHIBIT." (*Girl's Page.*)

(Printed Record, page 394.)

CUMBERLAND COUNTY.

No. two, for the Lunar Month ending February 14, 1876.

Number of Pupils.	NAMES OF PUPILS.	Age.	ATTENDANCE. DAYS OF THE MONTH. Thursday 13	Monday 17	Monday 18	Wednesday 19	Thursday 20	Friday 21	Monday 24	Monday 25	Wednesday 26	Thursday 27	Friday 28	Monday 31	Monday 1	Wednesday 2	Thursday 3	Friday 4	Monday 7	Tuesday 8	Wednesday 9	Thursday 10	Friday 11	Monday 14	No. of days attended	No. of days belonged	Total attend'ce for term	Progress	Conduct
1	Katie Bowman		..	..	..	..	..	..	..	..	x	..	x	..	..	..	x	..	..	x	..	x	x	..	16	22	76	2	1
2	Susan Balmer		..	..	..	..	..	..	..	x	..	..	..	..	..	..	x	x	x	x	x	x	..	x	14	22	81	2	2
3	Mary Hertzler		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	22	103	1	1
4	Romain Best		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	22	106	1	1
5	Rebecca Eshleman		..	..	..	..	..	..	..	..	x	..	..	..	..	..	x	x	x	x	x	x	..	..	14	22	79	2	1
6	Bertha Gilbert		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	x	x	19	22	94	1	1
7	Lilly Konn		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	x	x	19	22	89	1	2
8	Iola Drawbaugh		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	22	22	97	1	1
9	Cassie Bowman		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	..	x	..	..	..	20	22	77	2	1
10	Lizzie Kahney		..	..	..	..	..	..	..	..	..	..	x	..	..	..	x	..	..	..	x	..	x	..	..	18	22	85	2	2
11	Annie Eshleman		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	x	..	x	..	..	20	22	97	1	1

Attending Institute

BOOKS USED.

The National series of Readers & Spellers.
Brooks Series of Mathematics.
Harveys Grammar.
Monteith Ceographies.
Quackensbos History.
Payson Dunton & Scribers Theory of Penmanship.

No. of pupils without necessary books.....

Has the Board adopted a uniform series of books.....

No. of days school open during month ...21

No. of days school open during term till date....105

Institute..... 5

110

| | | |

AMERICAN BELL TELEPHONE COMPANY,-18

"EXHIBIT GORGAS, NO. 1."

FRED. M. OTT, Examiner.

(Printed Record, page 678.)

Copy of entries from the Day-Books of the Drawbaugh Manuf't Co., entering into the account of Dan'l Drawbaugh.

1867.

June 17 Daniel Drawbaugh, Cr.
By Cash 250

July 6 Daniel Drawbaugh, Cr.
By Cash 50

26 D. Drawbaugh, Cr.
By Cash 100

Nov 11 D. Drawbaugh, Cr.
By Cash 200

Dec 11 D. Drawbaugh, Dr.
To ¼ inch Power Pump to replace Ahl's Pump 90
To ¾ inch Power Pump to replace Whaler's Pump 25

1868.

Jan. 20 D. Drawbaugh, Cr.
Paid into Co. on account 350

Feb. 4 D. Drawbaugh, Dr.
To work done for J. Teahl for which Drawbaugh received pay 1

Mar. 27 D. Drawbaugh, Dr.
To 1 file for his use .40

May 5 D. Drawbaugh, Cr.
Paid into Co as part of installment 250

May 15 D. Drawbaugh, Dr.
To 1 Faucet 3 50

June 10 Rec'd of D. Drawbaugh
on account 10

---

23 D. Drawbaugh, Dr.
To fixing reaper for Smith 1 20

Oct. 31 D. Drawbaugh, Dr.
To Installments called into Company to wit:

June 27th, 1867,	300
July 22nd, "	100
Oct. 19th, "	250
Dec. 17th, "	200
Jan. 3rd, 1868,	100
April 16th, "	350

Nov. 19 D. Drawbaugh, Dr.
To Cash Rec'd of J. M. Fisher & Son for work done for them as above 5 90

Dec. 10 D. Drawbaugh, Dr.
To 3 hours turning and cutting threads on screws 1 20

---

23 D. Drawbaugh, Cr.
By one bottle 30

1869.
Jan. 28 D. Drawbaugh, Dr.
To 14 inch file 80
" Tram for H. Snell 20

1869.

Feb. 22	D. Drawbaugh, Dr.		
	To Red Staff for Tram given to Horst		2 00
23	To 14 inch file		75
Mar. 16	D. Drawbaugh, Dr.		
	To work Nail Feeder 15 hours @ 40	6	
20	D. Drawbaugh, Dr.		
	To 1 14 inch file		80
26	D. Drawbaugh, Dr.		
	To 1½ hour Lathe work		60
April 6	D. Drawbaugh, Dr.		
	To turning bolt with thread		80
May 3	D. Drawbaugh, Dr.		
	To 2 lbs. Babbitt metal @ 22c		44
20	D. Drawbaugh, Dr.		
	To use Lathe on T. James' work		3 00
June 5	D. Drawbaugh, Dr.		
	To assessment	125	
Dec. 20	D. Drawbaugh, Dr.		
	To turning gas pipe taps, 5½ h.		2 20

1870.

April 1	D. Drawbaugh, Dr.		
	To assessment and Int.	530	
July 25	D. Drawbaugh, Cr.		
	By labor and material to the amount of $1000, less $130 as upon the minutes being due him for all claims up to April 1st, 1870,	870	

Aug. 3	D. Drawbaugh, Dr.	
	To Blower Castings as per Houck's Bill	6 15
1871.		
Jan. 10	D. Drawbaugh, Dr.	
	To bill of H. Gilmore; Interest 4 years on $16, $3.84	19 84
June 5	D. Drawbaugh, Dr.	
	To Shafting sold the Company that was previously paid for	16
1870.		
June 15	D. Drawbaugh, Dr.	
	To 1 10 inch file	
	" 1 12 " "	
July 23	D. Drawbaugh, Dr.	
	To Bill of Natcher & Son for deed	1 38
Aug. 23	To Cash rec'd from John Eichener for work	1 20
30	D. Drawbaugh.	
	To 4 feet 2½ inch gas pipe @ 90c	360
Sept. 9	D. Drawbaugh, Dr.	
	To Cash from Hummel for work	35
1870.		
Dec. 14	D. Drawbaugh, Dr.	
	To Cash rec'd from John Eichelberger for repairing mandril for saw 2½ hours	1
1871.		
Feb. 8	D. Drawbaugh.	
	To bill of groceries from Geo. Brinton Jan. 3	1 44
	To bill " 17	2 78

AMERICAN BELL TELEPHONE COMPANY,-18

27 D. Drawbaugh.
To Assessment of date Dec. 5th, 1870 200

May 4 D. Drawbaugh.
To Bill of Castings 18

1873.
July 11 D. Drawbaugh.
To Cash on apportionment 650
By " " Assessment & Int. 225

D. Drawbaugh.
To Interest on assessment 31 33

24 D. Drawbaugh.
To Coal 1900 lbs @ 4.75 on Jan. 7th, 1871 4 52

1876.
May 1 Paid D. Drawbaugh
on labor, &c., as per settlement in full to date 178 75

D. Drawbaugh.
To bill of Faucets 45 30

D. Drawbaugh.
By Cash as per settlement in full to date 127 58

July 20 D. Drawbaugh.
To Cash as dividend per order of Co. May 1st 20

EXHIBIT GORGAS, NO. 2.

FRED. M. OTT, Examiner.

(Printed record, page 678.)

DANIEL DRAWBAUGH.

Account with Drawbaugh Manufacturing Co., from first Ledger.

1867				
Dec.	11	To pumps	115	00
1868 Feb.	4	" Custom Work	1	00
Mar.	27	" Tools		40
May	15	" 1 Faucet	3	50
June	25	" Fixing Reaper	1	20
Oct	31	" Installment Called June 27, 1867	300	00
		" " " July 22, 1867	100	00
		" " " Oct. 19, "	250	00
		" " " Dec. 17, "	200	00
		" " " Jan. 3, 1868	100	00
		" " " April 16, "	350	00
Nov	19	" Cash of Fisher	5	90
Dec	10	" 3 hours Lathe Work	1	20
1869 Jan	29	" Tram and file	20	80
Feb	22	" Red Staff	2	00
	23	" File		75
Mar	16	" 15 hr work Nail Feeder	6	00
	20	" 1-16 inch file		80
	26	" 1½ h Lathe Work		60
April	6	" " "		80
May	3	" 2 lbs Babbitt Metal		44
	20	" Use of Lathe	3	00
July	5	" Installment	125	
Dec	20	" to 5½ hours work	2	20
1870 April	1	" Installment	500	
	"	" "	30	

	Aug	3	" Castings	6	15
1871	Jan	10	" Cash Gilmore	19	84
	June	5	" H. F. D. Shafting	16	
				2162	58
1867					
	June	27	By Cash	250	
	July	6	" "	50	
	"	22	" "	100	
	Nov	11	" "	200	
1868	Jan	20	" "	350	
	May	5	" "	250	
	June	10	" "	10	
	Dec	23	" Bottle		30
1870	July	25	" Labor, &c	870	
				2080	30

Account from second Ledger.

1870					
	June	15	To Sundries		
	July	23	" feed, Natcher & S.	1	38
	Aug	23	" Cash	1	20
		30	" Mdse	3	60
	Sept	9	" Cash		35
	Dec	13	" Cash	1	00
1871	Feb	8	" Bill of G	4	22
	Mar	1	" Assessment	200	00
	May	4	" Castings	18	00
1873	July	19	" Cash	650	00
			" Interest	31	33
		24	" Coal	4	52
				915	60
1873					
	July	19	By Apportionment	650	
	"	"	" Cash	225	
				875	

EXHIBIT GORGAS, NO. 3.

(Printed record, page 678.)

"EXHIBIT GORGAS No. 3," being copy of the minutes of the meeting of the "Drawbaugh Manufacturing Company," held May 1, 1876.

"Meeting of Drawbaugh Mfg Co.,
May 1st, 1876.

At the residence of Secretary and Treasurer in Mechanicsburg, Pa., 10 o'clock A. M.; members present, Wm. R. Gorgas, president in the chair; Dr. M. B. Mosser, secretary and treasurer; Henry S. Rupp, Sam'l M. Hertzler, John Shulz, Dan'l Drawbaugh and George Wise. Those absent, John F. Hauck, Wm. L. Gorgas and A. H. Gardner. Minutes of last meeting read and adopted. Next in the order of business was the claim of Dan'l Drawbaugh for labor, &c., in the sum of four hundred and seventy dollars and eighty-seven cents, ($470.87) with a credit in favor of the Company of faucets and pump (1½ inch) &c., of forty-five dollars and thirty cents ($45.30). An examination of this account showed that two hundred and ninety-two dollars and twelve cents ($292.12) of said bill was settled for in full of the $1000 claim of July 25th, 1870, deducting the sum of $45.30 and $292.12 from the aggregate sum of $470.87 as claimed, allowed Dan'l Drawbaugh the credit of one hundred and thirty-three dollars and forty-five cents (133.45) due him, further deducting from the latter the sum of eighty-two dollars and twenty-eight cents ($82.28) as book account of old ledger, due the Company by Dan'l Drawbaugh, allowed the said Dan'l Drawbaugh, in his final settlement to date of May 1st, 1876, the sum of fifty-one dollars and thirteen cents ($51.13) which the Secretary and Treasurer was ordered to pay said Dan'l Drawbaugh, the settlement as above being in full accord as represented by the books of the Company.

The second question considered was the claim of Dr. M. B. Mosser, for interest on money advanced the Company in 1870, as Treasurer. It was resolved by S. M. Hertzler and seconded by Henry S. Rupp, that the Treasurer be allowed the interest claimed (*see books of acct*) and that he also make settlement in liquidation of all debts and make

distribution of all funds in his hands according to shares held by each member, at as early date as possible.

Adjournment being in order they adjourned at 2½ o'clock P. M., to meet again at call of President, Secretary and Treasurer.

President, M. B. MOSSER,
WM. R. GORGAS. Sect. & Treasurer."

I hereby certify that the foregoing is a correct copy of the minute of Drawbaugh Mfg Co., of May 1st, 1876.

FRED. M. OTT, Examiner.

EXHIBIT GORGAS, NO. 4.

(Printed record, page 680.)

"EXHIBIT GORGAS, No. 4, being the minutes of the meeting of the Drawbaugh Mfg Co., for July 25, 1870.

"Meeting of the D. Mfg Co., July 25, 1870, at the Stone Tavern; members present, Wm. R. Gorgas, Hertzler, Rupp, Jno. F. Hursh, A. H. Gardner, D. Drawbaugh and M. B. Mosser, President, in the chair.

Minutes of last meeting read and adopted.

Business before the Company.

D. Drawbaugh's matter was brought before the society, and on motion of the proposition of H. S. Rupp, D. Drawbaugh agreed to take $1000.00 less $115.00 for labor performed for the Company since its organization, including all claims in full against the Company up to April 1st, 1870. It was also agreed that the Company, with a view to raising moneyfor the time, go into Bank with note for $1000, at 90 days, to be drawn by the Treasurer and Henry S. Rupp, as endorser, this money to be appropriated to the paying off hands, &c., for the Company.

The money thus obtained the company hold themselves as a body responsible.

M. B. MOSSER,
Sect. & Treasurer."

True copy, FRED. M. OTT, Examiner.

"EXHIBIT DRAWBAUGH JUDGMENTS, Full Record."

(Printed record page 904.)

AMONG THE RECORDS AND PROCEEDINGS enrolled in the Court of Common Pleas in and for the County of Cumberland, in the Commonwealth of Pennsylvania, to the several numbers and terms stated, is contained the following:

COPY OF APPEARANCE DOCKET ENTRY.

Penrose
1.50 Pd. by Plff.

Daniel Eckels 99 vs. John Drawbaugh, H. F. Drawbaugh and Daniel Drawbaugh. Entered 3d May, 1869.	August Term, 1869.
Rl. Dt. $1500	Debt by Judgment Bond Stamped and dated 1st April, 1869, with warrant of Atty. to appear for Defendants and confess Judgment to the Plff. for Three Thousand Dollars. Conditioned for the payment of Fifteen hundred Dollars, on 1st May, 1869, with int. @ 10 per cent. from date, costs of suit, release of errors and stay of execution until 1 May, 1869. The same is for purchase money of Real Estate, Judgment Docket No. 7, Page 56. Exit Fi. Fa. No. 40, April Term 1870.
Int. 1st Apl. 1869 @ 10 pr. ct.	
Atty 3.00	
Plff. 1.50	
Prothy. B. .35	
" C. .75	
$5.60	

COPY OF JUDGMENT DOCKET ENTRY.

Defendants.	Plaintiffs.	No.	Term & Year	Date of lien
Drawbaugh, John, *et al.*	Daniel Eckels	99	Aug. T, 1869	May 3, 1869
Drawbaugh, H. F. *et al.*	Daniel Eckels	99	Aug. T, 1869	May 3, 1869
Drawbaugh, Daniel, *et al.*	Daniel Eckels	99	Aug. T, 1869	May 3, 1869

Nature of Lien.	Amount.	Interest from	No. & Term of Fi. Fa.
Bond.	1500 00	April 1, 1869	40, Apr. T, 1870
Bond.	1500 00	April 1, 1869	40, Apr. T, 1870
Bond.	1500 00	April 1, 1869	40, Apr. T, 1870

Copy of Bond and Warrant.

Know all Men by these Presents.

[STAMPS.] That we, John Drawbaugh, H. F. Drawbaugh, and Daniel Drawbaugh, all of Cumberland County, Penn'a., are held and firmly bound unto Daniel Eckels, in the sum of Three Thousand Dollars, lawful money of the United States of America, to be paid to the said Daniel Eckels, his certain Attorney, Executors, Administrators or a signs, to which payment well and truly to be made, we do bind ourselves, our heirs, Executors and Administrators, and every of them firmly by these Presents, Sealed with our seals, Dated the first day of April in the year of our Lord one thousand eight hundred and sixty-nine. The Condition of this obligation is such, That if the above bounden, John Drawbaugh, H. F. Drawbaugh, and Daniel Drawbaugh, their Heirs, Executors, Administrators or any of them, shall and do well and truly pay, or cause to be paid unto the above named Daniel Eckels, his certain Attorneys, Executors, Administrators or assigns, the just sum of Fifteen hundred dollars (purchase money of real estate) on or before the first day of May, A. D. 1869, with interest at the rate of ten per cent. per annum from date until paid, without any fraud or further delay, then the above obligation to be void, or else to be and remain in full force and virtue.

And further, we do by these presents empower Wm. M. Penrose, Esq., or any attorney of any court of record in the State of Pennsylvania to appear for us in any suit or action which may be brought or entered in any of the said Courts, and after one or more declarations filed therein, to confess judgment against us for the said sum of money in said penalty mentioned with interest and costs of suit, and release of all errors, and with stay of execution, until the said first day of May, one thousand eight hundred and sixty-nine.

JOHN DRAWBAUGH, [SEAL.]
H. F. DRAWBAUGH, [SEAL.]
DANL. DRAWBAUGH, [SEAL.]

Sealed and delivered
in the presence of

WM. PENROSE,
WM. J. SHEARER.

No. 99, August T. 1869.

Bond and Warrant.

Daniel Eckels,
vs.
John Drawbaugh,
H. F. Drawbaugh,
Daniel Drawbaugh.

For $1500 Rl. Dt.
Due 1 May, 1869,
Int. at 10 pr ct from
1 Apl. 1869.

Filed 3, May 1869.

$1.50 pd by plff.

—56—

COPY OF EXECUTIVE DOCKET ENTRY.

Penrose.		April Term 1870.
Daniel Eckels,	Fi. Fa.	26th March, 1870,
40 vs.	Rl. Dt. $1500	writ returned mon-
John Drawbaugh,	Int. April 1, 1869 at 10 pr ct	ey made and paid
H. F. Drawbaugh,	Atty. 3.00	plaintiff as per re-
Daniel Drawbaugh,	Plff. 1.50	ceipt book, page
Entered March 8, 1870	Prothy B. .35	131. Sheriff for
No. 99 Augt. T. 1869.	Prothy C. .75	costs. So answers.
	17.40	Jos. C. Thompson,
	23.00	Sheff.
		Sheff, $17.40.

COPY OF FI. FA.

Cumberland County, S. S.

The Commonwealth of Pennsylvania, to the Sheriff of Cumberland County,

Greeting:

[SEAL.] You are hereby commanded that of the Goods and Chattels, Lands and Tenements of John Drawbaugh, H. F. Drawbaugh and Daniel Drawbaugh, late of said county, Yoeman, in your bailiwick, you cause to be made and levied as well a certain debt of Fifteen Hundred Dollars lawful money of the United States, which Daniel Eckels, lately in our County Court of Common Pleas, before our Judges at Carlisle, recovered against the said John Drawbaugh, H. F. Drawbaugh & Daniel Drawbaugh, as also Five sixty hundredth Dollars, which to the same Daniel Eckels in the same Court were adjudged for his damages which he sustained by occasion of the

detention of that debt, whereof the said John Drawbaugh, H. F. Drawbaugh & Danl. Drawbaugh are convict. And have you then that money before the Judges at Carlisle, at our County Court of Common Pleas, there to be held the second Monday of April next, to render to the said Daniel Eckels for debt and damages aforesaid. And have you then and there this writ.

Witness Hon. James H. Graham, President of said Court, at Carlisle, the 10th day of January A. D. 1870.

W. V. CAVANAUGH, Prothonotary.

Copy of Endorsement.
No. 40, April Term, 1870.
Daniel Eckels,
vs.
John Drawbaugh,
H. F. Drawbaugh,
Daniel Drawbaugh.
} Fi. Fa.

Rl. Dt. $1500.

Int. April 1, 1869 at 10 per cent.

Atty. 3.00
Plff. 1.50
Prothy B. .75
Prothy C. .35

26 March, 1870.

Writ returned, money made and paid plff. as per receipt book, page 131. Sheff for costs.

So Answers

Jos. C. THOMPSON,
Sheff.

Sheff. Thompson, $17.40.

Penrose.

Received March 8, 1870, at 5½ o'clock P. M.

COPY OF APPEARANCE DOCKET ENTRY.

1.50 Pd. by Plff.

August Term 1870.

William Drawbaugh,
316 vs.
Daniel Drawbaugh,
Henry F. Drawbaugh
and John Drawbaugh,
Entered 4 August, 1870.
Rl. Dt. $600.00
Int. March 26, 1870.
Plff. 1.50

Prothy. C. (Cr.) .35
.20

Pd. Prothy. W. .55

Debt on Judgment Note stamped and dated 26 March, 1870, with warrant of Atty. to appear for deft. and confess judgment to the Plaintiff for Six hundred Dollars, payable 26 March, 1871, with interest, costs of suit, release of errors and stay of execution until due.

Judgment Jdg. Docket No. 7, Page 57.

Mar. 27, 1876. Per paper filed dated Mar. 6, 1876, this judgment is satisfied in full.

WILLIAM DRAWBAUGH.

COPY OF JUDGMENT DOCKET ENTRY.

Satisfaction	Defendants	Plaintiffs	No.	Term & Year	Date of Lien
Satisfied	Drawbaugh, Danl. *et al.*	Wm. Drawbaugh	316	Aug. T. 1870	Aug. 4, 1870
Satisfied	Drawbaugh, H. F. *et al.*	Wm. Drawbaugh	316	Aug. T. 1870	Aug. 4, 1870
Satisfied	Drawbaugh, John *et al.*	Wm. Drawbaugh	316	Aug. T. 1870	Aug. 4, 1870

Nature of Lien	Amount	Interest from	Satisfaction
Note	600.00	March 26, 1870	Satisfied See App. Dkt.
Note	600.00	March 26, 1870	Satisfied See App. Dkt.
Note	600.00	March 26, 1870	Satisfied See App. Dkt.

COPY OF JUDGMENT NOTE, &c.

March 26, 1870.

For value received we promise to pay to William Drawbaugh or order, Six hundred dollars with interest, on the twenty-sixth day of March, 1871. And further we do hereby empower any attorney of the Court of Common Pleas of Cumberland County or of any other Court of record in the State of Pennsylvania, or elsewhere, to appear for us, and after a declaration filed, thereupon to confess Judgment against us for the above sum, with costs of suit, release of errors and stay of execution until the said 26th day of March, 1870.

Signed, sealed & delivered in
the presence of

DANL. DRAWBAUGH, [SEAL.]
HENRY F. DRAWBAUGH, [SEAL.]
JOHN DRAWBAUGH, [SEAL.]

[Revenue Stamp.]

BLOSIERSVILLE, March 6th, 1876.

I herein order the Prothonotary to satisfy the docket in the matter of a Judgment note entered in my favor against Dal., Henry & John Drawbaugh, note dated March the last or beginning of April, 1870.

WILLIAM DRAWBAUGH.

(Copy of Endorsement.)
(No. 316 Augt. T. 1870.)

William Drawbaugh
vs.
Daniel Drawbaugh,
Henry F. Drawbaugh
and John Drawbaugh.

Note $600.
Int. 26 March, 1870.

1.50 Pd. by Plff.

Filed 4 Augt. 1870.

COPY OF APPEARANCE DOCKET ENTRY.

Jos. G. Vale
$2.00 pd. by Atty. V.
Emig.

John G. Malehorn,
210 vs.
Daniel Drawbaugh.
Entered March 8th, 1871.
Praecipe & Statement.

Sheff F. (Cr.)	3.17
Atty. Rec'd. Jos. G. Vale,	4.50
Tr. L. L. (Cr.)	.50
Arbs Pd. by Plff's Atty. Rec'd J. G. V.	3.00
Prothy. C.	4.16
" "	.20
Pd. Prothy. Cavanaugh,	15.53

April Term, 1871.
Summons in trespass on case sur. assumpsit, March 14, 1871, served by certified copy on Daniel Drawbaugh, left at his dwelling house in presence of an adult member of his family.
April 10, 1871, Emig appears for Deft. 10th April, 1871, Rule on Deft. to choose arbitrators on Saturday, 29th April, 1871—10th April, 1871, Geo. Emig, Esq., accepts service of Rule.
April 29, 1871, Deft. by Atty. appeared at the Prothy's Office, & Plff. not appearing, nor any person for him, Prothy. fixed the number of Arbs. to be three, & time & place of meeting, & Defts. Atty. & Prothy. made choice of Wm. Eppley, John Bruce, Sr., & Geo. B. Strock as Arbs. to meet at the office of J. G. Vale, Esq., in the Township of East Pennsboro', at Bridgeport, on Monday, May 15, 1871, at 10 o'clock A. M. (Exit notice.) May 17, 1871, Report of Arbs. filed finding for Plff. Sixty Dollars and costs—Judgment Ni. Si.

Judgment Docket No. 7, Page 59.

July 31, 1871, Recognizance for Stay of Ex. approved by Judge Graham filed Oct. 25, 1871. This Judgment is fully satisfied.

Jos. G. VALE,
Atty. for Plaintiff.

COPY OF JUDGMENT DKT. ENTRY.

Satisfaction	Defendants	Plaintiffs	No.	Term&Year	Date of Lien
Satisfied	Drawbaugh,Daniel	John G.Malehorn	210	April T.1871	May 17,1871

Nature of Lien	Amount	Interest from	Satisfaction
Awd.of Arbs.	60.00	May 17, 1881	Satisfied See App. Dkt

COPY OF PRAE.

John G. Malehorn *vs.* Danl. Drawbaugh. } In Court of Common Pleas of Cumberland County. No. Term 1871.

Issue summons in tresspass on case sur assumpsit—returnable according to law.

Jos. G. VALE,
Atty for Plaintiff.

March 8th, 1871.

To W. V. Cavanaugh, Esq.,
Proth. of Cumb. Co.

No. 210, April T, 1871.
John G. Malehorn
vs.
Danl. Drawbaugh.
Praecipe.
Filed March 8, 1871.
2.00
Vale.

COPY OF STATEMENT, &C.

John G. Malehorn *vs.* Danl. Drawbaugh. } In the Court of Common Pleas of Cumberland County, P'a. No. Term 1871.
Statement.

STAMPS, 10 Cents.

The Plaintiff's demand is founded upon a Promissory Note made by Danl. Drawbaugh, of which the following is a correct copy:

$133.97. March 29th, 1870.

Ninety days after date I promise to pay to the order of John G. Malehorn, at the Harrisburg National Bank, One hundred and thirty-

three ninety-seven one hundred dollars, without defalcation for value received.

Endorsement; Signed, DANL. DRAWBAUGH.

JNO. G. MALEHORN.

Received seventy-five dollars on this written note.

JNO. G. MALEHORN.

Protested June 30th, 1870, at the request of the Harrisburg National Bank, (see paper "A" herewith filed as part of this statement) and the Plaintiff says said sum of $133.97, with interest thereon from maturity of note and costs of protest, with costs accrued or which may accrue, less seventy-five dollars are due from the Defendant to him.

JOS. G. VALE,

March 8th, 1871. Atty for plaintiff.

"A."

$133.97. March 29th, 1870.

Ninety days after date I promise to pay to the order of Jno. G. Malehorn at the Harrisburg National Bank, one hundred and thirty-three ninety-seven one hundred dollars, without defalcation for value received.

Endorsed, DANL. DRAWBAUGH.

JNO. G. MALEHORN.

United States of America.

State of Pennsylvania, *ss:*

Be it known, That on the day of the date hereof, I, R. J. Fleming, Notary Public for the Commonwealth of Pennsylvania, duly commissioned and sworn, residing in the city of Harrisburg, in the said Commonwealth, at the request of the Harrisburg National Bank, exhibited the original note, whereof the above is a true copy, at the Harrisburg National Bank, where it is payable, and demanded payment and received for answer that the funds were not there to pay it, of which I give due notice in writing to the Drawer and Endorser thereof:

Whereof I, the said Notary, at the request aforesaid, have protested and do hereby solemnly protest against the drawer of said note, and all others concerned, for all costs, damages and interest suffered orto be suffered for want of payment thereof.

This done and protested at Harrisburg aforesaid.

In testimony whereof I have hereunto set my hand and affixed my Natorial seal, this 30th day of June, 1870.

[Notary's Seal.] R. J. FLEMING, Notary Public.

"A."

No. 210, April Term, 1871.

John Malehorn

vs.

Danl Drawbaugh.

Statement and copy of note

Filed March 8, 1871.

Vale.

Endorsement on Protest.

Danl. Drawbaugh, Drawer.

Jno. G. Malehorn, Endorser.

$133.97.

June 30, 1870.

Balance of Note paid by John G. Malehorn,

July 16, 1'70.

On list.

Protest,	$2.07
Postage,	3
Lein,	.30
	$2.40
Interest,	9
25 Cent Internal Revenue Stamp.	

COPY OF RULE TO CHOOSE ARBITRATORS.

In the Court of Common Pleas of Cumberland County.

John G. Malehorn *vs.* Daniel Drawbaugh. } No. 210 of April Term, 1871.

10 April 1871. Rule at instance of day, Plaintiff, that Arbitrators be chosen on Saturthe 29th day of April, 1871, between the hours of ten o'clock A. M. and two o'clock P. M., in the Prothonotary's Office in Carlisle, for the trial of all matters in variance, between the parties in this suit.

A true copy from the Record.

Witness my hand and the seal of the said Court the 10th day of April, 1871.

[SEAL.] J. R. IRVINE, Depty. Prothonotary.

No. 210 April Term, 1871.
John G. Malehorn
vs.
Daniel Drawbaugh.

Rule on Defts. to choose Arbitrators.

Service accepted.
GEO. S. EMIG,
Atty. for Deft.
April 10, 1871.

Vale.

COPY OF SUMMONS.

The Commonwealth of Pennsylvania.
Cumberland County, *s s:*
To the Sheriff of Cumberland County,
Greeting:

We command that you summon Daniel Drawbaugh, so that he be and appear before our Court of Common Pleas to be holden at Carlisle, in and for said County, on the 10th day of April next, there to answer John G. Malehorn, in an action of trespass on case sur assumpsit. And have you then and there this writ. Witness the Honorable James H. Graham, Esquire, President of our said Court, the 8th day of March, in the year of our Lord, one thousand eight hundred and seventy-one.

W. V. CAVANAUGH,
Prothonotary.

No. 210 April T. 1871.
John G. Malehorn
vs.
Danl. Drawbaugh.
Sums. in trespass, &c.

March 14th, 1871.
Served by certified copy on Daniel Drawbaugh, left at his dwelling house in presence of an adult member of his family.
So answers
J. K. Foreman,
Shff.

Sheff. F. 317

Jos. G. Vale.

COPY OF NOTICE AND AWD. OF ARBITRATORS.

Cumberland County, S C T.

John G. Malehorn *vs.* Daniel Drawbaugh. } In the Court of Common Pleas of the County aforesaid, of the Term of April, in the year of our Lord, 1871, No. 210. And now, to wit, April 29th, A. D. 1871, all matters in variance in this suit between the parties are agreeably to and by virtue of an Act of Assembly, entitled "An Act relating to References and Arbitrators," referred to Wm. Eppley, Geo. B. Strock & John Bruce, Sr., of the County aforesaid, who, after being all sworn or affirmed, justly and equitably to try all matters in variance submitted to them, shall proceed to investigate, examine, and decide the above stated suit, and report their determination. And make out an award, signed by all, or a majority of them, and transmit the same to the Prothonotary, according to law, within seven days after they have agreed thereon. The above Arbitrators are to meet at Bridgeport, at the office of J. G. Vale, Esq., (East Pennsboro twp.,) on the Fifteenth day of May, 1871, at ten o'clock in the forenoon.

[SEAL.]

Certified under my hand and seal of office, at Carlisle, the day and year first above written.

W. V. CAVANAUGH,

Prothonotary.

We, the undersigned Arbitrators above named, met pursuant to notice, and having been severally affirmed, and after hearing the evidence and allegations of the parties, do award to the Plaintiff the sum of Sixty Dollars and costs.

JOHN S. BRUCE,

WILLIAM EPPLEY,

GEORGE B. STROCK.

Fees paid by Plaintiff's Atty. $3.00.

No. 210 April T. 1871.
John G. Malehorn
vs.
Daniel Drawbaugh.

Report of Arbitrators.

COPY OF RECOGNIZANCE FOR STAY OF EXECUTION.

Jno. G. Malehorn *vs.* Daniel Drawbaugh. } In the Court of Common Pleas of Cumberland County, No. 210 April Term, 1871. May 17th, 1871, Judgment against defendant on award of Arbitrators for $60.

Cumberland County, *ss:*

J. B. Drawbaugh acknowledges himself to indebted to Jno. G. Malehorn, the above named plaintiff, in the sum of one hundred and twenty dollars, lawful money of the United States, to be levied of his goods and chattels, lands and tenements, and to be void upon condition that he, the said J. B. Drawbaugh, shall pay the amount of the above judgment together with the interest and costs, in the event that the said Daniel Drawbaugh shall fail to pay the same at the expiration of six months from the said 17th day of May, A. D. 1871, as per agreement of counsel respectively.

J. B. DRAWBAUGH.

Taken and acknowledged this 31st July, A. D. 1871.

J. R. IRVINE,
Depty. Prothy.

31st July, A. D. 1871, I approve of the above security for stay of execution of the above stated judgment.

J. H. GRAHAM,
President Judge of said Court.

No. 210 April T. 1871.

Malehorn
vs.
Drawbaugh.

Recog. for Stay of Ex. im.

Filed 31 July, 1871.

COPY OF APPEARANCE DOCKET ENTRY.

Shearer

1.50 pd. by Plff.

Weakley.

John B. Nell
4 *vs.*
A. H. Gardner, Danl. Drawbaugh,
Geo. B. Heck & J. B. Drawbaugh.
Entered 11 Jany. 1872.

Rl. Dt.	$1000.00
Int. April 1, 1869.	
Plff.	1.50
Prothy. C.	.35
" Wal. R. L.	.30
	2.15

April Term, 1872.
Debt by Judgt. Note Stamped & dated April 1, 1870, by which the Deft. confesses judgment to the Plaintiff for One thousand dollars, payable with interest 12 months after date, with waiver of stay of execution after maturity and of all laws exempting property from execution. Judgment Jdgt. Dkt. No. 8, Pages 80, 47, 92. Payment of 2 yrs. interest credited & endorsed on Note. Ex. No. 4 Jany. T. 1873, Attachment.

20th Oct. '73, $220 paid by Gardner, per Saml. Hepburn, Esq., on this Judgment. I appear for John B. Heck, Administrator of Geo. B. Heck—J. M. Weakley.

6th Jany. 187. The death of Geo. B. Heck is suggested and John B. Heck, his administrator is substituted in his stead.

Exit Sci. Fa. No. 14, April T. 1877.

14 April, 1877, Per. paper filed dated March, 1877, two hundred and fifty-four and fifty-seven-one hundredth Dollars of this Judgment assigned to John B. Heck.

COPY OF JUDGMENT DKT. ENTRY.

Defendants	Plaintiffs	No.	Term	Year	Date of Lien
Gardner, A. H. *et. al.*	John B. Nell	4	April T.	1872	Jany. 11, 1872
Drawbaugh, Danl. *et. al.*	John B. Nell	4	April T.	1872	Jany. 11, 1872
Heck, Geo. B. *et. al.*	John B. Nell	4	April T.	1872	Jany. 11, 1872
Drawbaugh, J. B. *et. al.*	John B. Nell	4	April T.	1872	Jany. 11, 1872

Nature of Lien	Amount	Interest from	No. & Term of Sci. Fa.	
Note	1000.00	April 1, 1869	14	April T. 1877
Note	1000.00	April 1, 1869	14	April T. 1877
Note	1000.00	April 1, 1869	14	April T. 1877
Note	1000.00	April 1, 1869	14	April T. 1877

COPY OF NOTE.

Twelve months after date we, or either of us, promise to pay to John B. Nell, or order, the sum of One Thousand Dollars, without defalcation for value received, and we do hereby confess judgment therefor and release of errors. And we do hereby waive all stay of executions from and after the maturity of this the above note, and all laws exempting property from execution. And we agree that all our property and effects whatsoever may be taken in execution to pay aforesaid with lawful interest. Witness our hands and seals the first day of April, A. D. one thousand eight hundred and sixty-nine.

A. H. GARDNER, [SEAL.]
DANL. DRAWBAUGH, [SEAL.]
GEO. B. HECK, [SEAL.]
J. B. DRAWBAUGH, [SEAL.]

Witness present,

JESSE KURTZ. [Revenue Stamp.]

AMERICAN BELL TELEPHONE COMPANY,-18

No. 4 April T. 1872.

John B. Nell
vs.
A. H. Gardner,
Danl. Drawbaugh,
Geo. B. Heck and
J. B. Drawbaugh.

Rl. Dt. $1000.00
Int. April 1, 1869.

Filed Janv. 11, 1872.
1.50 pd. by Plff.

Paid interest on this note for one year.
March 31st, 1871,
Paid 60 dollars,
Interest on this note.

80, 47, 92.

COPY OF ASSIGNMENT.

John B. Nell
vs.
A. H. Gardner, Daniel Drawbaugh, Geo. B. Heck and J. B. Drawbaugh.

No. 4, April Term, 1872. In the Court of Common Pleas of Cumberland County.

I, Jno. B. Nell, acknowledge to have received of John B. Heck, administrator of Geo. B. Heck, one of the defendants in the above named judgment, the said George B. Heck being one of the sureties in the said judgment of A. H. Gardner, who is the principal debtor, the sum of Two hundred and fifty-four and fifty-seven-one hundredth Dollars, and hereby assign and transfer that amount of the said judgment to John B. Heck, and direct that the same be marked for his use on the record of the said judgment.

Witness my hand and seal this day of March, A. D. 1877.

JOHN B. NELL, [SEAL.]

No. 4 April T. 1872.

Nell
vs.
Gardner, Heck, Drawbadgh, *et. al.*

Assignment to Heck.

Filed 14 April, 1877.

COPY OF APPEARANCE DOCKET ENTRY ATTACHMENT.

Shearer

1.75 Pd. by Plff.

J. M. Weakley.

Hepburn.

John B. Nell 4 vs. A. H. Gardner, Danl. Drawbaugh, Geo. B. Heck & J. B. Drawbaugh. (Saml. Hepburn, Esq., Samuel Hepburn, Jr., Esq., and the First National Bank of Carlisle, Pa., Garnishees.)	January Term, 1873. Attachment on Judgt. No. 4, April T. 1872, to attach & levy upon money, estate or effects whatsoever belonging to A. H. Gardner, one of the defts. in the hand and possession of the Garnishees, &c.
Entered 12 Nov. 1872, Praecepe. Sheff. F. 8.06 Prothy. W. 1.16 1.75 .20	12 November, 1872. Served on the First National Bank of Carlisle, by service personally and by certified copy on Chas. Hepburn, Esq., Cashier of said Bank.

13th November, 1872. Served personally and by certified copy on Samuel Hepburn, Esq.

3d December, 1872. Served personally and by certified copies on A. H. Gardner, Danl. Drawbaugh, Geo. B. Heck & J. B. Drawbaugh.

Jany. 11, 1873, Hepburn appears for Defendants, who are garnishees. I appeared for Administrators of Geo. B. Heck.

JNO. WEAKLEY.

Sheff. F. 8.06

Prothy W. 1.16

1.75

.20

COPY OF PRAE FOR ATTACHMENT.

John B. Nell, *vs.* A. H. Gardner, Danl. Drawbaugh, George B. Heck, and J. B. Drawbaugh.	In the Court of Common Pleas of Cumberland County, Pa. No. 4, April T, 1872. Rl Dt. $1000.00 Int from 1 April, 1869.

Issue writ of attachment against the defendants in the above case for the sum of one thousand dollars debt, with interest from April 1, 1871, and costs under act of 16 June, 1836, and direct the Sheriff to attach and levy upon any money, estate or effects whatsoever belonging to the said A. H. Gardner, one of the defendants. in the hands and possession of Samuel Hepburn, Esq., of Samuel Hepburn, Jr., Esq., of the First National Bank of Carlisle, and insert in the said writ of attachment a clause in the nature of a Sci. Facias against the garnishees in Foreign attachment, requiring the said Samuel Hepburn, Esq., Samuel Hepburn, Esq., Jr., and the said First National Bank of Carlisle, to appear at the next term of Court and show cause why the said Judgment of the Plaintiff should not be levied of the effects of the said defendants in their hands.

WM. J. SHEARER,
Atty for Plff,
12 Nov. 1872.

To W. V. CAVANAUGH, Esq.,
Prothy.

No. 4, Jany T, 1873.

John B. Nell,
vs.
A. H. Gardner, Danl. Drawbaugh, Geo. B. Heck, and J. B. Drawbaugh.

Prae. for Attachment.

Filed 12 Nov. 1872.

1.75 pd by Plff

Writ and Sheriff's Return missing.

COPY OF APPEARANCE DOCKET ENTRY.

Beltzhoover,
Shearer,
1 75 chd att.
Weakley,
Hays,
Sadler.

John B. Nell,

14 *vs.*

A. H. Gardner, Daniel Drawbaugh, and J. B. Drawbaugh, surviving defendants with notice to and John B. Heck, admn of Geo. B. Heck, dec'd, an original defendant, and others Terre Tenants, &c.

April Term, 1877.

Sci. Fa. to revive and continue the lien of Judgment No. 4, April T, 1872, et quare, executionem non against the persons named in the style of this suit as serving defts with notice to those persons named as terre tenants and to all others, terre tenants and to John B. Heck, Adm of Geo. B. Heck, dec'd, retble February 5, 1877.

Entered Jany 10, 1877, Prae.		I appear for John B. Nell, the Plff
Jany 24, 1877, afft of def filed.		F. E. Beltzhoover, June 28, 1879.
Mar 22, 1877, " " "		I appear for Daniel Drawbaugh and
Brought forward	2.15	J. B. Drawbaugh, and also for Dan-
Pro Nell,	1.60	iel Fettrow, W. F. Sadler, 10 Feb.'79.
Bro't forward from att,	14.77	I appear for Daniel Drawbaugh and
Pro Gra,	1.36	J. B. Drawbaugh. John Hays
Atty,	1.75	I appear for A. H. Gardner, J. B. Heck,
Sheff Gill,	1.24	Adm, Dan'l Fetrow, Sarah Heck and
	——	accept notice for the terre tenants
	22.87	named Jany 20, 1877. J. M. Weakley.

11th Jany, '77, service accepted for J. B. Heck, Sarah Heck, widow of John Heck, William Heck, Gertrude Heck, children and Geo. Rupley, grandchild of John Heck, as per endorsement of their attorney, J. W. Weakley. Service on the balance accepted as per endorsement on appearance docket.

June 28, 1879, rule on defts to plead in 20 days on Judgt.

July 1, 1879, per endorsement on rule J. M. Weakley accepts service; also John Hays, Esq., accepts service and pleads payment and payment with leave and set off.

July 5, 1879, rule at instance of W. J. Shearer, Esq., on defts to show cause why judgment should not be entered for want of a sufficient affidavit of defense.

April 12, 1880, supplemental affidavit of defense filed.

COPY OF PRAE. FOR SCI. FA.

John B. Nell,
vs.
A. H. Gardner, Daniel Drawbaugh, surviving defendants, with notice to Jno. B. Heck, adm of George B. Heck, dec'd, an original defendant, Daniel Fetrow, terre tenant of the land of Daniel Drawbaugh, bound by said judgment No. 4, April T, 1872, and to Sarah Heck, widow of John Heck, William Heck, et al., children and Geo. Rupley, grandchild of John B. Heck, dec'd, terre tenants of the land conveyed by feoffment to the said George Heck, to the said Jno. R. Heck, dec'd, which is bound by the lien of said judgment.

In the Court of Common Pleas of Cumberland County.

Sir:—

Issue writ of Scire Facias to revive judgment No. 4, of April T, 1872, to continue the lien et quare, executionem non for the amount of the judgment against A. H. Gardner, Daniel Drawbaugh and J. B. Drawbaugh, surviving defendants, with notice (the death of George B. Heck is suggested of record) to John B. Heck, adm of George B. Heck, dec'd, Daniel Fetrow, terre tenant of the land of Daniel Drawbaugh, bound by said judgment deed to Sarah Heck, widow John Heck, William Heck, Sallie Heck and Gertrude Heck, children and George Rupley, grandchild of John B. Heck, terre tenants of the land conveyed be feoffment by said George B. Heck to said John B. Heck, dec'd, which land was and is bound by the lien of said judgment and to all others terre tenants, &c., ret'ble 1st return day.

To J. M. WALLACE, Esq., Prothy.

WM. J. SHEARER,
Atty for Plff,
10 July, 1877.

No. 14, April T, 1877.

John B. Nell,
vs.
A. H. Gardner, et al.

Prae. for Sci. Fa.

Filed 10 Jany 1877.

Shearer.

"COPY OF WRIT."

Cumberland County, *ss:*

The Commonwealth of Pennsylvania to the Sheriff of Cumberland County,

Greeting:

[SEAL]

Whereas, John B. Nell, in the Court of Common Pleas, to wit, of the term of April, in the year of our Lord one thousand eight hundred and seventy two, before the Honorable B. F. Junkin and his associate Judges of the same Court, did, by consideration of the same Court, recover against A. H. Gardner, Daniel Drawbaugh, George B. Heck and J. B. Drawbaugh, late of your County, a certain sum of one thousand dollars lawful money of Pennsylvania, debt, as also two $\frac{15}{100}$ dollars which to the said Plaintiff in the same Court were likewise adjudged for his damages which he sustained by occasion of the detention of that debt, whereof the said A. H. Gardner, Daniel Drawbaugh, George B. Heck and J. B. Drawbaugh are convict as appears of record, &c., and whereas the death of the said George B. Heck has been suggested of record, and his adm'r, John B. Heck, substituted in his stead. And whereas, the said judgment to preserve the Lien, according to the Act of Assembly in such case made and provided, should be revived, as is suggested to us by the said Plaintiff, as also execution of said judgment remains to be made, as on the information of the said Plaintiff we have received, and we being willing that those things which in our same Court are rightly acted, should be brought to due execution. Therefore we command you that by good and lawful men of your bailiwick, you make known to the said A. H. Gardner, Daniel Drawbaugh and J. B. Drawbaugh, surviving defendants, with notice to John B. Heck, administrator of Geo. B. Heck, dec'd, an original defendant, Daniel Fetrow, terre tenant of the land of Daniel Drawbaugh bound by said judgment No. 4, April term 1872, and to Sarah Heck, widow John Heck, William Heck, Sallie Heck, Gertrude Heck, children, and George Rupley, grandchild of John B. Heck, dec'd, terre tenants of the land conveyed by feoffment by said George B. Heck, to said John B. Heck, dec'd, which land was and is bound by the lien of said judgment, and to all others terre tenants, that they be and appear before our said Judges, at Carlisle, at our Court of

Common Pleas, there to be held the first Monday of February next, to show cause if any they have why the said Plaintiff ought not to have his said judgment revised as aforesaid and why he ought not to have execution against them for his debt and damages aforesaid, according to the force and effect of the recovery aforesaid, if he thinks fit. And have you then there the names of those men by whom you shalt make known to them, and this writ. Witness the Honorable M. C. Herman, President of our said Court at Carlisle, the 10th day of January, one thousand eight hundred and seventy-seven.

J. R. IRVINE,

Dep'ty Prothonotary.

No. 14, April Term, 1877.

John B. Nell,

vs.

A. H. Gardner, Daniel Drawbaugh, surviving defendants, with notice to John B. Heck, admn of George B. Heck, dec'd, an original deft, et alia.

Sci. Fa. to revive and continue lien of judgt No. 4, April T, 1872, &c., returnable Feby 5, 1877.

Sheff Gill 1.24.

I accept service for J. B. Heck, admr of Geo. B. Heck, Sarah Heck, widow John Heck, Wm. Heck, Sallie Heck, Gertrude Heck children and Geo. Rupley, grandchild of Jno. H. Heck.

J. M. WEAKLEY.

Shearer.

11 Jany, 1877.

Service accepted for J. B. Heck, Sarah Heck, widow of John Heck, William Heck, Sallie Heck, Gertrude Heck, children and Geo. Rupley, grandchild of John B. Heck, as per endorsement of their attorney J. M. Weakley.

Service on the balance accepted as per endorsement on appearance docket. So answers,

B. K. GOODYEAR,

Deputy Sheff,

for D. B. Gill, Sheff.

COPY OF AFFIDAVIT OF DEFENSE.

Jno. B. Nell, *vs.* A. H. Gardner, Daniel Drawbaugh, John B. Drawbaugh, et. al.	In the Common Pleas of Cumberland County. No. 14, April T, 1877.

Cumberland County, *ss:*

John B. Drawbaugh, being duly affirmed, doth depose and say that there is a just and full defense to the whole of the Plaintiff's claim in this case, the nature and character of which is as follows, to wit: The Hon. Saml Hepburn had in his hands a large amount of money belonging to A. H. Gardner and more than sufficient to pay and discharge the original judgment on which this writ of Scire Facias issued, and the plaintiff being informed of the fact was requested to and did issue a writ of Fieri Facias and attachment and attached the money in the hands of the said Hon. Saml Hepburn. After the attachment the Plaintiff failed to push it and allowed it to remain without doing anything in order to get the money. At that that the Hon. Saml Hepburn was considered financially good, and and a judgment obtained against would have been perfectly good and the money could have been made. Owing to the failure of the Plaintiff to push the attachment to a judgment against the garnishee and by reason of his delay the claim has been jeopardized if not entirely lost, as the Hon. Saml Hepburn has made an assignment for the beuefit of creditors and his real estate encumbered to such an extent previously to the assignment as to render it unlikely for anything to be made for the general creditors. Owing to the neglect of the Plaintiff in this particular the deponent is advised that he and the other defendants who were the sureties of A. H. Gardner the principal debtor, are discharged from liability, on said judgment now sought to be revived.

The deponent is informed and believes that almost Two hundred and Twenty Dollars has been paid on said judgment since its entry, and which is not credited. The deponent makes this affidavit of defense for himself and his co-sureties on the original judgment.

Affirmed and subscribed before me this 24 Jany, 1877.
J. M. WALLACE, Prothy.

J. B. DRAWBAUGH.

No. 14, April T, 1877.

Nell
vs.
Gardner, et al.

Affidavit of defense.

Filed Jany 24, 18 7.

J. B. Nell, *vs.* A. H. Gardner, et al. } 14 April Term, 1877. Sci. Fa. to revive and continue lien of judgment No. 4, April 7, 1872, J. M. Weakley, having been duly sworn, says that he is the attorney of J. B. Heck, admr of Geo. B. Heck, deceased, and that the said administrator has a just and legal defense to this scire facias the nature and character of which is that Geo. B. Heck, the defendant in the original judgment, was but a surety and the plaintiff in this judgment issued an attachment on monies belonging to A. H. Gardner the principal debtor and attached the said monies in the hands of a garnishee then solvent and liable to pay but that the said plaintiff has neglected and refused to press said attachment to judgment and by reason of such failure and neglect, the said decedent and his administrators are discharged from liability on said judgment.

Sworn and subscribed before me this 22d day of March, 1877. J. M. Wallace, Prothy. } J. M. Weakley.

14 Apl T, 1877.

Filed Mar. 22, 1877.

COPY OF RULE TO PLEAD.

In the Court of Common Pleas of Cumberland County, Commonwealth of Pennsylvania:

John B. Nell,
vs.
A. H. Gardner, et al. defendants with notice to J. B. Heck, admr, *et al*, terre tenants.

No. 14 April T, 1877, 28th day of April, A. D. 1879, at the instance of J. W. Shearer and F. E. Beltzhoover, Esqrs., Rule on defendants to plead in twenty days or judgment.

In testimony whereof I have hereunto set my hand and affixed the Seal of said Court, at Carlisle, this 28th day of June A. D. 1879.

J. A. DUNCAN,
Depty Prothonotary.

A true copy from the record.
[SEAL.]

To Messrs. Weakley, Hays.

No. 14, Apl T, '77.

I accept service of Rule for Hecks admrs.
J. M. WEAKLEY.

Enter plea of payment and payment with leave and set off in this case for the parties for whom I appeared.
JOHN HAYS,
Atty, &c.
1 July, 1879.

COPY OF RULE TO SHOW CAUSE, &C.

In the Court of Common Pleas of Cumberland County, Commonwealth of Pennsylvania:

John B. Nell,
vs.
A. H. Gardner, Danl Drawbaugh, et al.

No. 14 of April Term, A. D. 1877, 5th day of July, A. D. 1879, at the instance of W. J. Shearer, Esq., Rule on the defendants to show cause why judgment should not be entered for want of a sufficient affidavit of defense. In testimony whereof I have hereunto set my hand and affixed the seal of said Court, at Carlisle, this 5th day of July, A. D. 1879.

J. A. DUNCAN, Depty Prothonotary.

A true copy.
[SEAL.]

Service accepted,
JOHN HAYS.

COPY OF SUPPLEMENTAL AFF. OF DEFENSE.

James B. Nell
vs.
A. H. Gardner,
D. Drawbaugh,
J. B. Drawbaugh and
J. B. Heck, Admr. of
George B. Heck, dec'd.

In the Court of Common Pleas of Cumberland County, No. 14 April Term, 1877. Scire Facias to revive and continue the lien of judgment No. 4, April T. 1872.

Supplemental affidavit of defense.

John B. Heck, Administrator of George B. Heck, being duly sworn, says that the representatives of George B. Heck, dec'd., and the other defendants named, have a just and legal defense to the scire facias and the judgment on which it is founded, the nature and character of which is as follows: This deponent is informed and believes and therefore avers that in judgment No. 4, April T. 1872, A. H. Gardner was the principal debtor, and that D. Drawbaugh, J. B. Drawbaugh and George B. Heck were sureties; that prior to the death of George B. Heck, and one or both of the other sureties gave notice to the Plaintiff to proceed to collect the aforesaid judgment from A. H. Gardner the principal debtor who was then solvent, or that the said sureties would no longer remain liable, that the said Plaintiff neglected and refused to proceed to collect the said debt from the said A. H. Gardner, who was then solvent and who had a large amount of money due him from solvent parties, and that since that time the said A. H. Gardner has become insolvent and no money can be collected from him. And further, that payments have been made on account of the said judgment, the full amount of which this deponent does not know, except one payment of $254.51, which, as administrator of the estate of the said Geo. B. Heck, he himself made to the plaintiff, and which should be a credit against any liability that may be found against Geo. B. Heck; and that these facts, with the amount of money paid on account of this Judgt. will be proved by competent evidence.

J. B. HECK.

Sworn and subscribed before me this
10th day of April, 1880.

J. B. DRAWBAUGH,
J. P.

COPY OF APPEARANCE DOCKET ENTRY.

Dr. J. D. Bowman	April Term, 1873.
99 vs.	Debt by Judgment Note stamped and dated August 24th, 1872, with warrant of Atty. to appeal for defendant and confess Judgt. to the Plaintiff for one hundred and twenty-two $\frac{67}{100}$ Dollars costs of suit, release of errors, waiving the benefit of all exemption laws, payable six months after date. Judgment. Judgment Docket No. 8, Page 48.
Daniel Drawbaugh,	
Entered 10 Feby. 1873.	
Rl. Dt. $122.67	
Interest 6 months after date.	
Plff. D. D. 1.50	
Prothy. W. Cr. .35	
" Wal. filing. .30	
" " .20	
——	
Pd. Wal. .85	Apl. 3, 1876. Per paper filed this judgment is satisfied.

COPY OF JUDGMENT INDEX.

Satisisfaction	Defendant	Plaintiff	No.	Term Year
Satisfied	Drawbaugh,Danl.	Dr.J.D.Bowman	99	AprilT.1873
Nature of Lien	**Date of Lien**	**Interest from**	**Satisfaction**	
Note	Feby.10,1873	Feby.24,1873	Satisfied see App.Dkt.	

COPY OF NOTE.

$122.67.

Six months after date I promise to pay to the order of Dr. J. D. Bowman the sum of one hundred and twenty-two $\frac{67}{100}$ Dollars, without defalcation for value received. And further, I do hereby empower any Attorney of any of the Courts of Record in this State or elsewhere to appear for me, and after one or more declarations filed for the above sum, thereupon to confess judgment for the same in favor of the above named Dr. J. D. Bowman, his executors, administrators or assigns, against me as of last, next, or any subsequent term, with costs of suit and release of errors, and I do hereby waive and relinquish all and every benefit of any law exempting any of my estate or effects from levy and sale on execution for debt or otherwise, and agree that the same may be sold in satisfaction thereof. Witness my hand and seal at Milltown, this 24th day of August, A. D. 1872.

DANL. DRAWBAUGH, [L. S.]

Signed, sealed and delivered in
presence of
A. OVERHOLTZER.

No. 99 Apl. T. 1873.

Dr. Bowman
vs.
Danl. Drawbaugh.

Filed 10 Feby. 1873.

1.50 Pd. by Plff.

[Internal Revenue Stamp.]

Paper filed April 3, 1876. (Missing.)

COPY OF APPEARANCE DOCKET ENTRY.

75c pd. by Plff.

T. H. Wilson & Co.,
198 vs.
Daniel Drawbaugh.
Entered 17 March, 1873.

April Term, 1873.
Transcript from the Docket of G. W. Criswell, Esq. 11 Feby. 1871, Judgment for Plff. for $20.90.
Dec. 5th, 1871, Execution Issued to Constable Coble. Dec. 20th, 1871, returned Stayed. 20th April, 1872, alias Ex. issued 29th April, 1872, returned, received $10 on Judgment. Judgment, Judgment Docket No. 8, Page 48.

Plff.	.50
Justice, &c.,	5.04
Prothy. W.	.75
	.20
	6.49

COPY OF JUDGMENT DOCKET ENTRY.

Defendant	Plaintiff	No.	Term	Year	Nature of Lien
Drawbaugh, Danl.	T. H. Wilson & Co.	198	April	T. 1873	Transcript.

Date of Lien	Amount	Interest from
March 17, 1873.	20.90	Feby. 11, 1871

COPY OF TRANSCRIPT.

T. H. Wilson & Co.
vs.
Daniel Drawbaugh.

Civil Suit Feb. 4, 1871. Summons issued to A. Coble, constable, ret. Feb. 11, 1871, at 2 o'clock P. M. Plff's. claim is founded on a book account, demand $20.90. Served personally on deff. Feb. 6, 1871. Feb. 11, 1871, Deff. appears;

G. W. Criswell, 3.12
A. Coble, 1.92

on hearing judgment against deff. for Twenty Dollars and ninety cents, and costs of suit. Deft. takes the stay of execution on the plea of a Freeholder for three months from the date of judgment. Dec. 5, 1871, execution issued to A. Coble for debt, int. and costs. Dec. 20, 1871, Execution ret. and stayed by Plff. April 20, 1872, alias execution issued to A. Coble, Constable, for debt, int. and costs. April 29, 1872, execution ret. unsatisfied, received ten dollars on the judgment. $10.00.

T. H. WILSON & Co.

Cumberland County, *s s:*

I certify the above to be a correct transcript of the proceedings had before me in the above suit, and of record in my docket.

Witness my hand and seal at Camp Hill, the 15th day of March, A. D. 1873.

G. W. CRISWELL, [SEAL.]

No. 198 April T. 1873.

Transcript.

T. H. Wilson & Co.
vs.
Daniel Drawbaugh.

$10.90

Rl. Dt.

Int. 11 Feb. 1871.
Filed Mar. 17, '73.
75 paid Plff.

G. W. Criswell, for &.

48.

COPY OF APPEARANCE DOCKET ENTRY.

Daniel S. Wilson 199 vs. Daniel Drawbaugh. Entered 17th March, 1873. Rl. Dt. $81.92 Int. 11 Feby. 1871. Plff. .50 Justice, &c., 5.04 Prothy. W. .75 .20 6.49		April Term, 1873. Transcript from the Docket of G. W. Criswell, Esq. 11th Feby. 1871, Judgment for Plff. for $81.92. Dec. 5th, 1871, Execution issued to Constable Coble. Dec. 20th, 1871, Returned Stayed. April 20th, 1872, alias execution issued. April 29, Returned unsatisfied. Judgment. Judgment Docket No. 8, Page 48.

COPY OF TRANSCRIPT.

Daniel S. Wilson
vs.
Daniel Drawbaugh.
Costs.
G. W. Criswell, 3.12
A. Coble, 1.92

Civil Suit February 4th, 1871. Summons issued to A. Coble, Constable, returnable Feby. 11, 1871, at 2 o'clock P. M. Plff's. claim is founded on a book account demand $81.92. Summons served personally on Deft. Feby. 6, 1871. Feby. 11, 1871, Deft. appears. On hearing judgment against deff. for eighty-one dollars and ninety, $81.92 and costs. Defft. takes the stay of execution on the plea of a freeholder for nine months from date of Judgment. Dec. 5th, 1871, execution issued to A. Coble, for debt, interest and costs. Dec. 20, 1871, execution ret. and stayed by Plff. April 20, 1872, alias execution issued to A. Coble, for debt, int. and costs. April 29, 1872, ex. ret. unsatisfied.

Cumberland County, *ss:*

I certify the above to be a correct transcript of the proceedings had before me in the above suit, and of record on my docket.

Witness my hand and seal at Camp Hill the fifteenth day of March, A. D. 1873.

G. W. CRISWELL, [SEAL.]

No. 199, Apl. T. 1873.
Transcript.
Daniel T. Wilson
vs.
Daniel Drawbaugh.
$81.92
Rl. Debt.
Int. 11 Feb. 1871.
Filed Mar. 17, '73.
75 paid by
G. W. Criswell for Plff.
48.

COPY OF JUDGMENT DOCKET ENTRY.

Defendants	Plaintiffs	No. Term and Year	Nature of Lien
Drawbaugh, Danl.	Daniel T. Wilson	199 April T. 1873	Transcript.

Date of Lien	Amount	Interest from
March 17, 1873	81.92	Feby. 11, 1871.

COPY OF APPEARANCE DOCKET ENTRY.

75 paid by G. W. Criswell.

D. H. Good,
39 *vs.*
Daniel Drawbaugh, entered Dec. 13, 1875.
Rl. Dt., $27.81
Int. Sept. 6, 1875, justice, &c., 3.20
Transcript pd by G. W. Criswell, .50
Prothy W.. Cr. .75
" Wal. filing, .30
" " .20
Paid Wal. 4.95

January Term, 1876.

Transcript from the docket of G. W. Criswell, Esq., Sept. 6, 1875, judgment before Justice for Plff. for $27.81, Nov. 17, 1875, Execution issued Nov. 30, 1875, Execution returned "No Goods." Judgment Judgment docket No. 8, page 53.

Apl 3, '76, per paper filed this judgment is satisfied in full.

COPY OF JUDGMENT DOCKET ENTRY.

Satisfaction.	Defendants.	Plaintiffs.	No.	Term and Year.
Satisfied.	Drawbaugh	Danl. D.H.Good.	139.	Jany T., 1876.
Nature of Lien.	Date of Lien.	Amount.	Interest from	When satisfied
Transcript.	Dec. 13, 1875.	27.81	Sept. 6, 1875.	Satisfied see appr. dkt.

COPY OF TRANSCRIPT.

D. H. Good,
vs.
Daniel Draubaugh
Costs.
G.W. Creswell and constable, 2.70
Transcript, .50

Summons in debt not exceeding $100 issued August 28, 1875, returnable Sept. 4, 1875, at 10 o'clock A. M., to A. B. Shank, constable. Summons retur. served personally Augt. 28, 1875. Plaintiff's claims balance due on a note $27.81.

Sept. 4, 1875, deft appears and requests suit continued to Sept. 11, 1875, at 6 o'clock P. M. Sept. 6, 1875, deft does not appear, therefore judgment default against defendant for twenty-four dollars, eighty-one cents and costs.

Nov. 17, 1875, execution issued to A. B. Shank, constable, for debts and costs $29.94. Nov. 30, 1875, execution returned No Goods. So answers Constable Shank.

Cumberland County, *ss:*

Certified from the record of my docket.

Witness my hand and seal at Camp Hill, Dec. 8, 1875.

G. W. CRISWELL, [SEAL.]
J. P.

No. 139, Jany T, 1876.
Transcript.
D. H. Good,
vs.
Daniel Drawbaugh.
Filed Dec. 13th, 1875.
75 pd G. W. Criswell.
50

COPY OF SATISFACTION.

D. H. Good,
vs.
Daniel Drawbaugh

I, the within named plaintiff, do hereby acknowledge to have received of D. Drawbaugh, the deft, full satisfaction and payment in the within stated case of debt, interest and Plaintiff's costs, and requests the Prothy to file this receipt as evidence thereof.

J. M. WALLACE, Prothonotary. DAVID H. GOOD.
Filed Apl 3, 1876.

COPY OF APPEARANCE DOCKET ENTRY.

E. W. Wise,
vs.
Daniel Drawbaugh

April Term, 1876.

Debt by judgment note dated Apl 1. 1876, with warrant of atty to appear for defendant and confess judgment to Plff for two hundred and forty-six $\frac{67}{100}$ dollars, with int. with release of error and stay of execution till Apl 1, 1878

Entered April 8, 1876
Rl. Dt. $246.67
Int Apl 1, 1876.
Plff. 1.50
Prothy Wal .35
.20
Paid Proth Wal 2.05

Judgment docket, Vol. 1, N.° 1, Pg. 159.

April 9, 1877, Prothy Wallace received from deft $200.00 on the within judgment.

J. M. WALLACE.

Apl 16, 1877, received the above sum of $200.00 from J. M. Wallace, Prothy.

E. W. WISE.

Apl 6, 1878, rec'd from deft $67.20 in full of this judgment debt int and costs. J. M. WALLACE.

April 7, 1878, per paper filed Plff acknowledges receipt of satisfaction of judgt and authorizes the Prothonotary to satisfy the same.

Sept. 27, 1881, per paper filed to No. 581 assigned to Edgar W. Chellis.

COPY OF JUDGMENT DOCKET ENTRY.

Satisfaction.	Defendants.	Plaintiffs.	No.	Term and Year.
Satisfied.	Drawbaugh Danl.	E. W. Wise.	580.	April T. 1876.

Nature of Lien.	Date of Lien.	Amount.	Interest from	Where satisfied
Note.	April 8, 1876.	246.67	April 1, 1876	Satisfied see app dkt.

COPY OF NOTE, &c.

On the First day of April, 1878, I promise to pay E. W. Wise the sum of Two hundred and forty-six $\frac{67}{100}$ dollars, with interest, without defalcation, for value received; and I hereby authorize any attorney of any Court of Record ot the State of Pennsylvania or elsewhere, to appear for me and after one or more declarations filed to confess judgment against me for the sum of Two hundred and forty-six $\frac{67}{100}$ dollars, with release of errors and stay of execution till the first day of April, 1876, the interest to be paid annually.

Witness, DANL. DRAWBAUGH, [L. S.]

JOSEPH LEAS.

No. 580, April T, 1876.

E. W. Wise,
vs.
Danl. Drawbaugh.
Rl. Dt. 246.67
Int Apl 1, 1876.

Filed April 8, 1876.
1.50 pd by Plff.

Vol. 1, N. 1, p. 159.

Having received $67.20 from J. M. Wallace, Prothy, the debt, interest and costs in the above judgment I authorize him to satisfy the above judgment. Witness my hand and seal this 13th day of April, 1878, in presence of L. Swartz. E. W. WISE, [SEAL.]

COPY OF APPEARANCE DOCKET ENTRY.

1.50 pd by Plff.
E. W. Wise,
581 *vs.*
Daniel Drawbaugh
Entered April 8,1876
Rl. Dt. $246.67
Int Apl 1, 1876.

Plff.	1.50
Pro. Wal.	.35
	.20
	——
	2.35
Pro.Gra. transfer	.30
	——
	2.65

April Term, 1876.

Debt by judgment note dated April 1, 1876 with warrant of attorney to appear and confess judgment in favor of Plff for Two hundred and forty six $\frac{67}{100}$ dollars with interest from date, payable April 1, 1879, costs of suit release of errors and stay of execution till April 1, 1879. Judgment Judgment docket V 1, N 1, pg 159.

April 6, 1878, rec'd on this payment ($232.80) Two hundred and thirty-two $\frac{80}{100}$ dollars on this judgment. J. M. WALLACE.

Witness, $232.80. J. B. Drawbaugh, J. M. Masonhamer.

April 17, 1878, receipt of E. W. Wise filed acknowledging having received $232.80.

Sept. 27, 1881, per paper filed this judgment is assigned, transferred and set over to Edgar W. Chellis with prepaid costs.

COPY OF JUDGMENT DOCKET ENTRY.

Satisfaction.	Defendants.	Plaintiffs.	No.	Term year
	Drawbaugh Danl.	E.W.Wise.	581	April T, 1876
Nature of Lien.	Date of Lien.	Amount.		Interest from
Note.	April 8, 1876.	$246.67		April 1, 1876

COPY OF NOTE, &C.

On the first day of April, 1879, I promise to pay E. W. Wise the sum of Two hundred and forty-six $\frac{67}{100}$ dollars, with interest, without defalcation for value received, and I hereby authorize any attorney of any Court of record of the State of Pennsylvania or elsewhere to appear for me, and after one or more declarations filed to confess judgment against me for the sum of Two hundred and forty six $\frac{67}{100}$ dollars, with release of errors and stay of exeeution till the first of April, 1879, as witness my hand and seal this 1st day of April, A. D. 1876, the interest to be paid annually.

Witness, DANL. DRAWBAUGH, [L. S.]
JOSEPH LEAS.

No. 581, Apl. T. 1876.
E. W. Wise
vs.
Danl. Drawbaugh.
Rl. Dt. $246.67
Int. Apl. 1, 1876.
Filed April 8, 1876.
1.50 pd. by Plff.

Vol. 1, No. 1, p. 159.

Receipt Filed April 17, 1878.

E. W. Wise
vs.
Daniel Drawbaugh. } No. 580, April Term, 1876.

Same
vs.
Same } No. 581, April Term, 1876.

Same
vs.
Same } No. 582, April Term, 1876.

For value received, I hereby assign, transfer and set over the above described judgments in the Court of Common Pleas of Cumberland County to Edgar W. Chellis, with prepaid costs, &c.

E. W. WISE, [SEAL.]

Witness—A. E. EYSTER.

No. 580, 581 & 582, Apl. T. 1876.

E. W. Wise
vs.
Daniel Drawbaugh.

Assignment of Judgments to Edgar W. Chellis.

Filed Sept. 27, 1881.

COPY OF APPEARANCE DOCKET ENTRY.

1.50 pd. by Plff.

April Term, 1876.

E. W. Wise
582 vs.
Daniel Drawbaugh.

Entered Apl.8,1876.

Rl. Dt. $246.66
Int. Apl. 1, 1876
Plff. 1.50
Pro. Wal. 35
20
Pro.Gra.transfer 30
2.35

Debt by Judgment Note dated April 1, 1876, with warrant of Attorney to appear for Deft. and confess Judgment in favor of Plff. for Two hundred and fifty-six $\frac{66}{100}$ Dollars, with interest from date, payable April 1, 1877, costs of suit, release of errors and stay of execution until due. Judgment Judgment Docket, Vol. 1, N. 1, Pg. 159.

Sept. 27, 1881, Per paper filed to No. 581, of this term, this Judgt. is assigned, transferred and set over to Edgar W. Chellis with prepaid costs. (See paper.)

COPY OF JUDGMENT DOCKET ENTRY.

Defendants	Plaintiffs	No.	Term	Year	Nature of Lien
Drawbaugh, Danl.	E. W. Wise	582	April T.	1876	Note

Date of Lien	Amount	Interest from
April 8, 1876	$246.66	April 1, 1876

COPY OF NOTE.

On the First day of April, 1877, I promise to pay E. W. Wise the sum of Two hundred and forty-six $\frac{66}{100}$ Dollars, with interest, without defalcation for value received, and I hereby authorize any Attorney of any Court of record of the State of Pennsylvania or elsewhere to appear for me, and after one or more declarations filed, to confess judgment against me for the sum of Two hundred and forty-six $\frac{66}{100}$ Dollars, with release of errors and stay of execution until the first of April, 1877, as witness my hand and seal this 1st day of April, 1876.

DANL. DRAWBAUGH, [L. S.]

Witness, Joseph Leas.

No. 582. April T. 1876.

E. W. Wise
vs.
Danl. Drawbaugh.
Rl. Dt. $246.66
Int. Apl. 1, 1876.

Filed April 8, 1876.

1.50 pd. by Plff.

Vol. 1, N. 1, Pg. 159.

COPY OF APPEARANCE DOCKET ENTRY.

Todd.

1.50 chd. Atty.

Sadler.

B. F. Lee
303 vs.
Daniel Drawbaugh.

August Term, 1876.
Appeal by Deft. from the Judgt. of W. M. Burkstresser, Esq. 5 July, 1876,

Atty. Todd	2.50	Sadler appears for Deft. see appeal.
" Sadler	1.50	July 5, 1876. Entered. 5 July, 1876,
Tr. L. L.	.50	afft. of defense filed. Deft. pleads "nil
Justice,&c.,pd.by Plff.	3.00	debit." Augt. 7, 1876, L. Todd, Esq.,
Prothy. Wal.	3.16	appears for Plff. see Watch Book.
" Use pd. by plff.	.30	Aug. 7, 1876, Rule at instance of Plff.
	.75	to choose Arbs. on Thursday, 24th inst.
	.20	Augt. 24, 76 Parties by their Attys.
	——	appear and choose E. Cornman, J. W.
	11.91	Eby and John Hyer, Arbs, to meet by agreement on Sept. 15th next at 10 o'clock a. m. All notices waived.

I hereby waive the meeting of the Arbs in this case, and confess judgt in favor of the Plaintiff for $34.00 with

int. from 14th June '76 with costs and the right of appeal as if judgment had been entered on the award of Arbs.

W. F. SADLER, Atty
for Deft 14 Septr 76.

Judgment Judgment Dkt. Vol 1, N 1, Pg. 159.
Exit Fi. Fa No. 49 Nov. T, 1876.

COPY OF JUDGMENT DOCKET ENTRY.

Defendants	Plaintiffs	No.	Term Year
Drawbaugh, Daniel	B. F. Lee	303	August Term, 1876

Nature of Lien	Date of Lien	Amount	Interest from
As on awd. of Arbs.	Sept. 14, 1876	34.00	June 14, 1876

No.	Term of Fi. Fa.	Where satisfied
49	Nov. T. 1876	Satisfied see Sheff. Ret.

COPY OF TRANSCRIPT.

B. F. Lee
vs.
Daniel Drawbaugh.
Costs $3.00
Pd. by Deft.

Transcript from Docket of W. M. Berkstresser, J. P. Civil Suit—Summons issued June 8th, 1876, G. C. Emerick, Constable, Returnable June 14th, at 6½ P. M. Served on oath by producing the original Summons to the Defendant and informing him of the contents thereof June 9. Now, June 14, 6½ P. M. Parties present, Plaintiff presents note of $25.00 against Defendant on which 9 Dollars interest has accrued. Defendant presents off-set of $181.97½. Plaintiff sworn. Defendant sworn. Defendant's offset disallowed because it is beyond the jurisdiction of the justice. Judgment publicly for Plaintiff for Thirty-four Dollars and costs of suit. July 1st, Defendant appeals.

July 1st, 1876, I become bail in this case in $50.00, conditioned for the payment of all costs that have accrued or may legally be recovered against the appellant. Signed JOHN B. DRAWBAUGH.

July 3d. Transcript for Defendant.

Cumberland County, *ss:*

I certify that the foregoing is a correct copy of the proceedings had in the above case and of record on my Docket.

Witness my hand and seal this 3d day of July, A. D. 1876.

W. M. BERKSTRESSER, J. P.

No. 303, August T. 1876.

B. F. Lee
vs.
D. Drawbaugh.

Sct.
Enter this appeal for Deft. to Prothy.
W. F. Sadler, Atty.
5 July, '76.
Filed 5 July, 1876.
1.50.
Sadler.

COPY OF AFFIDAVIT OF DEFENSE.

B. F. Lee
vs.
Daniel Drawbaugh.

Cumberland County, *ss:*

Before me, a Justice of the Peace in and for said County, appeared Daniel Drawbaugh, who being duly qualified according to law, deposes and says that he has a just and legal defense to the Plaintiff's claim, the nature and character of which is as follows: That the Plff. in this suit had brought suit upon a note for $25 due by Deft. that said Lee is indebted to the defendant for the one-third of certain improvements made by defendant to a certain invention for feeding a nail machine. The said B. F. Lee, with J. W. Geary and C. Eberly, being interested in said invention and being agreed to pay the defendant for said improvements. That the amount due by said B. F. Lee to defendant largely exceeds the whole amount of the debt and interest claimed by him on his said note, and deponent avers that he should in equity have a Judgment against the plaintiff for this amount and should not be called upon to pay anything to the plaintiff. That appeal is not taken for the purpose of delay but because injustice has been done him.

DANL. DRAWBAUGH.

Affirmed and subscribed before me
this 7th day of July, 1876.
W. M. BERKSTRESSER,
Justice of the Peace.

AMERICAN BELL TELEPHONE COMPANY,-18

No. 303, August T. 1876.

Lee
vs.
Daniel Drawbaugh.

Affi. of Defense.

Filed 15 July, 1876.

Sadler.

COPY OF RULE TO ARBITRATE.

B. F. Lee,
vs.
Daniel Drawbaugh

No. 303 of August Term, 1876.

7 Augt, 1876, Rule at instance of Plff that Arbitrators be chosen on Thursday the 24th day of August, 1876, between the hours of ten o'clock A. M. and two o'clock P. M. in the Prothonotary's office in Carlisle, for the trial of all matters at variance between the parties in this suit. Witness my hand and the seal of the said Court the 7th day of August, 1876.

J. R. IRVINE, Depty Prothy.

A true copy from the record.

[SEAL.]

No. 303 Augt T, 1876.

Lee,
vs.
Danl. Drawbaugh.

Rule to choose arbs.

I accept service of rule.
W. F. Sadler, Atty.

Todd.

COPY OF EXECUTION ENTRY.

Todd.

B. F. Lee	Fi. Fa.	November Term, 1876.
vs.	Rl. Dt. $34.00	Dec.11,1876, Writ returned,
Daniel Drawbaugh.	Int.14June,1876.	money made and paid Plffs.
Entered Oct.9,1876.	Atty. Todd, 2.50	Atty. per. receipt book, pg.
No. 303, Aug. T.	" Sadler, 1.50	159.
1876, app. dkt.	Tr. L. L. 50	Sheff. for costs.
	Pro. Wal. 4.41	Sheff. Tot. $3.32.
	3.32	So answers

Jos. TOTTON, Sheff.

per S. N. EMMINGER, Depty. Sheff.

COPY OF FI. FA.

Cumberland County, *ss:*

The Commonwealth of Pennsylvania to the Sheriff of Cum-
[SEAL.] berland County,

Greeting:

You are hereby commanded that of the Goods and Chattels, Lands and Tenements of Daniel Drawbaugh, late of said county yoemen, in your bailiwick, you cause to be made and levied as well a certain debt of Thirty-four Dollars, lawful money of the United States, which B. F. Lee, lately in our County Court of Common Pleas, before our Judges at Carlisle recovered against the said defendant, as also Nine $0\frac{91}{100}$ Dollars, which to the said Plaintiff in the same Court were adjudged for his damages which he snstained by occasion of the detention of that debt, whereof the said defendant is convict. And have you then and there this writ.

Witness Hon. M. C. Herman, President of said Court, at Carlisle, the 23d day of August, A. D. 1876.

J. M. WALLACE, Prothonotary.

No. 49, Nov. T. 1876.
No. 303, Aug. T. 1876, App. Dkt.
Fi. Fa.
B. F. Lee
vs.
Daniel Drawbaugh.

Rl. Dt. $34.00
Int. 14 June, 1876.
Atty. Todd, 2.50
" Sadler, 1.50
Tr. L. L. .50
Prothy. Wal. chd. 4.41

Dec. 11, 1876, Writ returned, money made and paid Plffs. Atty. per Receipt Book, page 159.

Told.

COPY OF MECHANICS' LIEN.

Sadler.

1.55 ch. Sadler.

John F. Lee and Henry Baylor, trading as Lee & Baylor, 1006 vs. Daniel Fetrow, owner or reputed owner, and Daniel Drawbaugh contractor.
Entered Aug 7, 1877.
Claim 85.31
Atty. 1.55

Mechanics' Lien.

John F Lee and Henry Baylor, trading as Lee & Baylor, dealers in lumber above named, hereby file their claim or statement of demand for shingles, scantling, boards, weatherboarding and planks furnished Daniel Fetrow for the erection of a blacksmith shop at instance of Daniel Drawbaugh, contractor, and against the building and the ground covered thereby, and so much other ground immediately adjacent thereto and belonging to the said Daniel Fetrow as may be necessary for the ordinary and useful purposes of the same, and sets forth as follows, to-wit:

First. The names of the parties claimant are John F. Lee and Henry Baylor, trading as Lee & Baylor. The name of the owner or reputed owner is Daniel Drawbaugh. The name of the contractor at whose instance and request the work was done and materials furnished is Daniel Fetrow, at the instance of Daniel Drawbaugh, contractor.

Second. The amount claimed to be due is eighty five $\frac{31}{100}$ dollars for shingles, scantling, boards, weatherboarding and planks furnished within six months last past for and about the erection and construction and upon the credit of the building hereinafter described, the

particular items, amounts and dates when said materials were furnished being specifically set out in bill hereto annexed and made part of this claim.

Third. The said building is located on a lot or piece of ground, situate in the village of Milltown, Lower Allen Township, Cumb. County, State of Penn'a., and bounded by heirs of Geo. B. Heck on the East and South, on the west by lot of Daniel Fetrow and on the north by a public road. The building is a one-story frame blacksmith shop 21 ft. front and 36 ft. in depth. Bill annexed, Judgt. Dkt. No. 1, Pg. 212 & 159.

Jany. 18, 1878. Per paper filed this claim is assigned to Chas. A. Baylor to secure Payt. of Judgt. No. 373, Aug. T. 1877. See paper filed to No. 168, Aug. T. 1877.

Sci. fa. No. 201, Nov. 1878.

COPY OF JUDGMENT INDEX.

Defendants	Plaintiffs	No.	Term & Year
Fetrow, Daniel, et. al.	Lee & Baylor	1006	Mech's Lien Dkt
Drawbaugh, Daniel et. al.	Lee & Baylor	1006	Mech's Lien Dkt

Nature of Lien	Date of Lien	Amount	Interest from
Mech's Lien	Aug. 7, 1877	85.31	Aug. 7, 1877
Mech's Lien	Aug. 7, 1877	85.31	Aug. 7, 1877

No.	When Sci. Fa.
201	Nov. T. 1878
201	Nov. T. 1878

COPY OF APPEARANCE DOCKET ENTRY.

Hays.
2.25 chd. Atty.
Emig.

John F. Lee & Henry Baylor trading as Lee & Baylor, now use of Chas. A. Baylor
201 vs.
Daniel Fetrow, owner or reputed owner, and Daniel Drawbaugh, contractor.
Entered Oct. 19, 1878.
Oct. 31, 1878, aff. of defense filed.

Sheff. Gill, 4.46
Pro. Wal. .91
.20

November Term 1878.
Sci. Fa. Sur. Mech's Lien No. 1006, Mech's Lien, Retble Nov. 11, 1878. Oct. 19, 1878. Served personally and by certified copy on Daniel Fetrow, owner or reputed owner, and Daniel Drawbaugh, contractor. Rule on Defts. to plead in 20 days on Judgment.
15 Jany. 1879. Defendants plead payment and payment with leave. Repl'n Non Solvet, Issue.

COPY OF PRAE. FOR SCI. FA.

John F. Lee & Henry Baylor trading as Lee & Baylor, now use of Chas. A. Baylor *vs.* Daniel Fetrow, owner and reputed owner, and Daniel Drawbaugh, contractor.	In the Court of Common Pleas of Cumberland County, No. 1006 Mechanics' Lien Dkt. Sir. Issue Sci. Fa. Sur. Mech's Lien in the above case.

To J. M. WALLACE, Prothy. JOHN HAYS, Atty.

Oct. 19, 1878.

Cumberland County, *ss:*

The Commonwealth of Pennsylvania to the Sheriff of Cum-
[SEAL.] berland County, Greeting:

Whereas, John T. Lee & Henry Baylor, trading as Lee & Baylor, hath filed a claim in our Court of Common Pleas for the County of Cumberland against Daniel Fetrow, owner or reputed owner, and Daniel Drawbaugh, contractor, for the sum of Eighty-five $\frac{31}{100}$ dollars ($85.31) for shingles, &c., furnished to a certain building, to wit: On a lot or piece of ground, situate in the village of Milltown, Lower Allen township, Cumberland County, State of Pennsylvania, and bounded by lands of the heirs of Geo. B. Heck on the east and south, on the west by lot of Daniel Fetrow and on the north by a public road. The building is a one story frame blacksmith shop, 21 feet front and 36 feet in depth.

And whereas, it is alleged that the said sum still remains due and unpaid to the said Lee & Baylor, now for use of Charles A. Baylor. Now we command you that you make known to the said Daniel Fetrow, owner, &c., and Daniel Drawbaugh, contractor, and to all such persons that may hold or occupy the said building, that they be and appear before the Judges of our said Court, at a Court of Common Pleas to be held at Carlisle on the 11th day of November, to show if anything they know or have to say why the said sum of $85.31 should not be levied of the said building to the use of the said Chas. A. Baylor, according to the form and effect of the Act of Assembly in such cases made and provided, if to him it shall seem expedient. And have you then and there this writ.

Witness Hon. M. C. Herman, President of our said Court, at Carlisle, the 7th day of Oct., in the year of our Lord, one thousand eight hundred and seventy-eight.

M. F. THOMSON,
Depy. Prothonotary.

No. 201, Nov. T. 1878.

John F. Lee & Henry Bailor, trading as Lee & Baylor,
vs.
Daniel Fetrow, owner or reputed owner, and Daniel Drawbaugh, Contractor.

Sci. fa. Mcks. Lien No. 1006.

Oct. 19, 1878.

Served personally and by certified copies on Daniel Fetrow, owner or reputed owner, and Daniel Drawbaugh, contractor.

So answers

D. H. Gill, Sheriff.
Per Jos. Shrom,
Depy. Shff.

Shff. Gill 4.46.

Hays.

COPY OF AFFIDAVIT OF DEFENSE.

John F. Lee & Henry Baylor, trading as Lee & Baylor,
vs.
Daniel Fetrow, owner or reputed owner, & Daniel Drawbaugh, Contractor.

In the Court of Common Pleas of Cumberland County.
No. 201, Nov. T. 1878.

Before me, M. F. Thompson, Depy. Prothy. of the Court of Common Pleas of Cumberland County, personally appeared Daniel Drawbaugh, one of the defendants above named, who, being duly sworn according to law, doth depose and say that he has a just and legal defense to the whole of the Plaintiff's demand in the above suit, the nature and character of which is, that for a period of years, he, the said Daniel Drawbaugh, had been doing skilled labor for Plaintiffs in above to the amount of in the neighborhood of two hundred and sixty dollars, that the lumber was bought on the faith and credit of the understanding of Plaintiffs to defendant, that he is prepared to settle with Plaintiffs and if he owes them anything is prepared to pay the same, and further saith not.

DANIEL DRAWBAUGH.

Affirmed & subscribed before me this
31st day of October, 1878..
M. F. THOMSON,
Depy. Prothy.

COPY OF APPEARANCE DOCKET ENTRY.

75 Pd. by Plff.

January Term, 1879.

David Ditlow
vs
Daniel Drawbaugh.

Entered Dec. 31, 1878.

Rl. Dt. $55.90

Int. Sept. 21, 1878.

Plff. Dav. Ditlow, .50

Costs pd. by Plff. 2.23

Pro. Wal. (Cr.) 75

20

Transcript from the Docket of H. M. Rupley, Esq. Sept. 21, 1878, Judgment before Justice for $55.90 and costs of suit. Judgment Judgment Docket, Vol. 1, N. 1, P. 159.

June 5, 1879. This judgment is fully satisfied.

DAVID DITLOW.

COPY OF JUDGMENT DOCKET ENTRY.

Satisfaction	Defendants	Plaintiff	No.	Term Year
Satisfied	Drawbaugh, Danl.	David Ditlow	205	Jany. T. 1879

Nature of Lien	Date of Lien	Amount	Where Satisfied
Transcript	Dec. 31, 1878	55.90	Satisfied See App. Dkt.

COPY OF TRANSCRIPT.

David Ditlow
vs.
Daniel Drawbaugh.

Summons in debt on a promissory note not exceeding $100. Plaintiff's demand is for a promissory note dated April 9th, 1874, payable six months after date for Fifty Dollars ($50.00) without defalcation value received.

Signed, DANIEL DRAWBAUGH.

Endorsed thereon $6.00 Interest. Balance due Plff. $50.00

Interest due Sept. 21, '78, 5.90

Summons issued Sept. 16th, 1878, to appear Sept. 21st, at 9 o'clock A. M. Directed and delivered to Smith C. Sept. 17th, Summons returned served personally on Deft. by reading to him the contents. So say I, J. A. Smith, C. on oath.

Sept. 21st, '78, Parties appear. Judgment in favor of Plff. and against deft. for $55.90 and costs of suit. Same day deft. claims freehold stay of Execution. Affirmed by me says he owns a property in Mechanicsburg worth $2000, and only $300 judgment against it. Justified on oath and excepted by Plff.

Cumberland County, *ss:*

I certify that the above is a correct transcript of the proceedings had before me in the above suit, and of record in my docket.

Witness my hand and seal at West Fairview, this 30th day of December, 1878.

H. M. RUPLEY, [L. S.]
J. P.

No. 205, Jany. T. 1879.
Danl. Ditlow
vs.
Daniel Drawbaugh.

Justice Fees 1.75
Transcript .40
Const. fees .68
Paid by Plff. 2.23

Filed Dec. 31, 1878.
75 pd. by Plff.
Vol. 1, N. 1, Pg. 159.

COPY OF APPEARANCE DOCKET ENTRY.

1 Pd. by Deft.
Emig.

H. R. Mosser, Atty. in fact for Lee & Baylor,
vs.
Daniel Drawbaugh.
Entered March 1, 1880.
Aff. of defense filed.

Atty.	2.50
Tr. L. L.	.50
Justice costs pd. by Deft.	2.53
Deft.	1.00
Pro. Gra.	.80
" "	.75
" "	1.77

April Term, 1880.
Appeal from the Judgt. of H. M. Rupley, Esq., J. P. Bail before Justice. Aff. of defense. Sept. 23, 1881. By direction of Defts. Atty. filed Judgment by default for want of an appearance for Plff. in compliance with Sec. 25, Rule 8, Rules of Court. Judgment Judgment Docket.
Vol. 3, N. 1, Pg. 40.

Ext. Fi. Fa. No. 17, Nov. T. 1881.

COPY OF JUDGMENT DOCKET ENTRY.

Defendants	Plaintiff	No.	Term Year
Mosser, H. R. Atty. in fact	Daniel Drawbaugh	154	April T. 1880

Nature of Lien	Date of Lien	Amount	Interest from
Sec. Reg. non Pros.	Sept. 23, 1881	Costs	

No.	Term & Yr. of Fi. Fa.
16	Nov. T. 1881.

COPY OF EXECUTION DOCKET ENTRY.

Emig.

November Term, 1881.

Daniel Drawbaugh	Fi. Fa. for Costs.		Nov. 14, 1881. Writ
16 vs.	Atty.	2.50	returned money
H. R. Mosser, Atty. in	Tr. L. L.	.50	made. So answers
fact for Lee & Baylor.	Deft. Drawbaugh	3.53	A. A. Thomson,
Entered Sept. 23d, 1881.	Pro. Gra. chgd.	2.22	Sheff.
			Sheff. $1.00

COPY OF FI. FA.

Cumberland County, *ss:*

The Commonwealth of Pennsylvania to the Sheriff of Cum-
[SEAL.] berland County,

Greeting:

You are hereby commanded, that of the goods and chattels, lands and tenements of H. R. Mosser, Atty. in fact for Lee & Baylor, late of said county, yeomen. in your bailiwick, you cause to be made and levied the sum of costs $8\frac{75}{100}$ lawful money of the United States, which Daniel Drawbaugh, lately in our County Court of Common Pleas, before our Judges at Carlisle, recovered against the said defendant, for that the said defendant did not prosecute with effect his suit instituted by him against the said Daniel Drawbaugh, which said sum of Eight $\frac{75}{100}$ Dollars in the said court was adjudged to the said Daniel Drawbaugh for his costs and charges by him expended in and about said suit, whereof the said H. R. Mosser, Atty. in fact for Lee & Baylor, is convict. And have you then that money before the Judges at Carlisle, at our County Court of Common Pleas, there to be held the second Monday of November next, to render to the said Daniel Drawbaugh for his costs and charges aforesaid, and have you then and there this writ.

Witness, M. C. Herman, Esquire, President of said Court, at Carlisle, the 22d day of August, Anno Domini one thousand eight hundred and eighty-one.

J. A. DUNCAN, Depty. Prothonotary.

No. 15 Nov. T. 1881.

Daniel Drawbaugh
vs.
H. R. Mosser. Atty. in fact for Lee & Baylor.
} Fi. Fa. for Costs.

Atty.	2.50
Tr. L. L.	.50
Deft. Drawbaugh	3.53
Pro. Gra.	2.22
Sheff. Thom.	1.00

Nov. 14, 1881.
Writ returned money made.
So answers
A. A. Thomson,
Sheff.
per J. M. Wallace,
Dep. Sheff.

Emig.

Rec'd Sept. 24th, 1881, at 12:45 P. M.

Commonwealth of Pennsylvania, } *ss:*
County of Cumberland }

[SEAL.]

I, R. M. Graham, Prothonotary of the Court of Common Pleas in and for said County, do hereby certify that the foregoing is a full, true and correct copy of the whole record of the cases therein stated, wherein sundry persons are parties Plaintiff, and Daniel Drawbaugh is a party Defendant, as the same remains of record before the said Court at the several Nos. and Terms therein stated.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Court this twenty seventh day of December, A. D. 1881.

R. M. GRAHAM,
Prothonotary.

I, Martin C. Herman, President Judge of the Ninth Judicial District, composed of the County of Cumberland, do certify that R. M. Graham, by whom the annexed record, certificate and attestation were made and given, and who in his own proper handwriting thereunto subscribed his name and affixed the seal of the Court of Common Pleas of said County, was at the time of so doing and now is Prothonotary in and for said County of Cumberland, in the Commonwealth of Pennsylvania, duly commissioned and qualified, to all of whose acts as such full faith and credit are and ought to be given as well in Courts of judicature as elsewhere, and that the said record,

certificate and attestation are in due form of law, and made by the proper officer.

MARTIN C. HERMAN,
President Judge.

Commonwealth of Pennsylvania, } ss:
County of Cumberland. }

I, R. M. Graham, Prothonotary of the Court of Common Pleas in and for the said county, do certify that the Honorable Martin C. Herman, by whom the foregoing attestation was made, and who has thereunto subscribed his name was at the time of making thereof and still is President Judge of the Court of Common Pleas, Orphan's Court and Court of Quarter Sessions of the Peace in and for said County, duly commissioned and qualified; to all whose acts as such full faith and credit are and ought to be given, as well in Courts of judicature or elsewhere.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seal of said Court, this twenty-seventh day of December, A. D. 1881.

[SEAL.]

R. M. GRAHAM,
Prothonotary.

("Exhibit Drawbaugh Judgments, Full Record."
FRED M. OTT, Examiner.)

Jan. 11, 1882.

(Copy.)

"LEE & BAYLER'S BILL ANNEXED."

(Page 1023, defendants' printed record.)

John F. Lee *Henry Bayler.*

New Cumberland, Pa., Aug. 6, 1877.

Mr. Daniel Drawbaugh,
for Blacksmith Shop,

To Lee & Bayler. *Dr.*

Bills cut to order.

Lumber delivered at all points on the Northern Central R. R. Also at all points on the Cumberland Valley R. R.

1877	*Terms.*		
Feb. 19	To 286 ft. pine Sct.	@ 18	5.15
" "	To 397 " Hem. "	@ 10	3.96
"	" 300 " Bds.	" 8	5.40
"	" 4000 Shingles	" 9	36.50
23	" 640 ft. W. Bdg.	" 22	14.08
"	" 4640 " "		10.20
"	" 96 " Culls	" 2	1.92
"	" 250 Shingles		2.25
"	28 32 ft. W. Bdg.	@ 2¼	.72
	" Sct. & plank to Lee		5.63
			85.31

(Sig.) Lee & Bayler,
per W. F. Sadler, Atty.

(I certify that the foregoing is a correct copy of the exhibit "Lee & Bayler Bill Annexed."

FRED M. OTT, Examiner.)

"EXHIBIT MOSSER CLAIM."

(Printed record, page 1020.)

New Cumberland, Jan. 30, 1880.

Daniel Drawbaugh

1873	To Lee & Bayler.		Dr.
Apl. 25	To 2—1½ boards	@ 37	$1.48
Sept. 5	To 300 ft. Bds.	@ 18	2.40
Nov. 3	To 48 ft. Set.	@ 15	.72
" "	To 18 ft. Bds.	@ 16	.29
" "	To 32 ft. flooring	@ 3½	1.40
" "	To 2250 Shingles	@ 6	13.50
" "	To 30 ft. Set.	@ 16	.58
1874			
Dec. 5	To 42 ft. Walnut & pine	@ 5	2.10
1878.			
Sept. 1	To 3000 short shingles	@ 8	24.00
" "	To 400 ft. roofing lath	@ 5	2.00
" 3	To 500 short shingles	@ 8	4.00
" "	To 100 ft. roofing lath	@ 5	.50
1877			
Feb. 19	To 286 ft. pine Set.	@ 18	5.15
" "	To 294 ft. Hem.	@ 10	3.96
" "	To 300 ft. Bds.	@ 18	5.40
" "	To 4000 Shingles	@ 9	36.00
" 26	To 640 ft. weath. bdg.	@ 22	14.08
" "	To 464 " do	@ 22	10.20
" "	To 96 ft. culls	@ 20	1.92
" "	To 1 Bundle No. 2 Shingles	@ 2.25	2.25
" 28	To 32 ft. weath. bdg.	@ 2¼	.72
			$132.65
1876			
Aug. 25	By bill's to date		71.92
			$60.73

Interest	10.67
	71.40

State of Pennsylvania,
Cumberland County, Town of West Fairview.

I, H. M. Rupley, Justice of the Peace in and for the above named county, do hereby certify that the foregoing is a true copy of the account which was the cause of action, and upon which judgment was rendered in the suit brought in my court on the 2nd day of February, 1880, by H. R. Mosser, Atty. in fact for Lee & Bayler, against Daniel Drawbaugh. Judgment was rendered on said account Feb. 7, 1880, against said Drawbaugh for $71.40; appeal was taken to Court of Common Pleas Feb. 28, 1880.

H. M. RUPLEY, J. P.

(I certify that the within is a correct copy of said exhibit.

FRED M. OTT,
Examiner.)

(Copy.)

"Drawbaugh's Bills for Repairs done for Eberly & Lee, John F. Lee, and Lee & Baylor." (Printed Record, page 1020.)

Eberly's Mills, Pa.

Eberly & Lee, to

Daniel Drawbaugh, Dr.

Feb.	17	1866	To Turning fitting valve and repairing governor	5.00
March	13	"	To 28 lbs iron @ 5	1.40
"	"	"	To 17½ Hours fitting shaft and flanges	6.80
"	26	"	To 1 Day Repairing Engine at Saw mill	3.00
Oct.	10	"	To repairing saw gummer	3.00
"	12	"	To 12½ Hours Repairing conecting Rod & shaft for engine	5.00
		1867		
May	30	1867	To Repairing pump and Governor 8 Hours	3.20
June	12	"	To work at blow off Boiler front pipes & repairing pipes in Heater 1½ days	3.75
Sept.	9	"	To Repairing pedestal Boxes, &c., Repairing pump exentric 9 H.	3.60
Novm	15	1869	To 2½ ft. Steam pipe	.90
"	"	"	To 2 Ells & one nipple	.60

"	"	"	To 9 Hours on engine & Boiler	3.60
"	25	"	To fixing Lever & check valve	1.25
June	24	1870	To 8 ft. 1½ inch Steem pipe @ 40	3.20
"	"	"	To 2½ Hours @ 40 per H	1.00
"	31	"	To fitting up Key for Cross head	.80
"	"	"	To forging Key	.37½
				46.47½"

(I certify that the foregoing is a correct copy of the first bill in exhibit "D. Drawbaugh accounts."

Jan. 27, 1882 FRED. M. OTT, Examiner.)

(Copy.)

"Eberly's Mills, Pa.

John F. Lee To

Danl. Drawbaugh, Dr.

Sept.	23	1870	To Smithing	.45
"	"	"	To 2½ Hours Turning @ 40	1.00
"	28	"	To New valve for check and cutting pipe	1.00
Oct.	15	"	To Repairing blow off and overhaling pump in well 7 Hours @ 40—1 day at Mill	5.30
Decm	3	"	To 6 ft 1½ inch pipe @ 42	2.52
"	"	"	To 3 Hours @ Mill @ 35	1.05
June	20	1871	To work on cut off valve 6 Hours	2.40
"	"	"	To Smithing	.40
July	21	"	To making nipple taping boiler front and repairing Brass valve 9 Hours	3.60
Augest	7	"	To work @ Mill ¾ day	1.88
"	"	"	To Smithing	.45
Sept.	12	"	To Repairing Sterips for Saw 3 Hours	1.20
Oct.	10	"	To making new piston head bolts and springs Lath and Vice work 13 Hours	5.20
"	"	"	To half day @ Mill—	1.25
Decm	10	"	To making screws for planer and repairs	1.40
April	10	1872	To Repairing Govener cutting and fitting pipe for Steam gage 11 Hours	4.40
"	"	"	To Smithing	.20
"	13	"	To one day @ Mill	3.00
"	15	"	To 4 Hours Lath work guvener	1.60

May	19	"	To 9 Hours New die and Repairing Saw	3.60
"	"	"	To making and chasing screw 1½ II	.60
"	23	"	To 5 Hours work on Engine @ night	2.20
August	24	"	To 4½ ft 1½ inch pipe @ 45 cts per ft	2.02½
"	"	"	To fitting same	.50
"	26	"	To 4 ft pipe @ 45 one Reducer 20	2.00
"	"	"	To 4 Hours @ Mill	1.40
Sept	6	"	To 4½ Hours work on Small Engine	1.80
				52.42"

(I certify that the above is a correct copy of the first bill of D. Drawbaugh against John F. Lee.

Jan. 27, 1882. FRED. M. OTT, Examiner.)

(Copy.)

"Eberly's Mills, Pa.

John F. Lee To

Danl. Drawbaugh, Dr.

January	7th, 1873	To	Repairing Steem chest for large engine six casteel studs & Burrs	8.00
"	"	"	To Smithing	2.55
Feb	18th	"	To 2 ft pipe @ 60	1.20
"	"	"	To one 2 inch Ell	.50
March	1	"	To 7 lbs Rot iron @ 5 per	.35
"	"	"	To making boalts for Govener & flanges 8 hours @ 40	3.20
"	7	"	To 3½ ft 1½ inch pipe @ 60	1.95
"	"	"	To 4 Hours at Mill @ 35 per	1.40
April	17	"	To turning saw mandril 4 Hours	1.80
"	"	"	To Smithing	.20
				21.25

(I certify that the foregoing is a correct copy of the second bill of D. Drawbaugh against John F. Lee.

Jan. 27, 1881. FRED. M. OTT, Examiner.)

(Copy.)

"Eberly's Mills, Pa.

Lee & Bailer To

Danl. Drawbaugh, Dr.

April	25	1873	To patern for Engine cillinder Head	4.60
"	30	"	To fitting up cillinder Head 9 Hours @ 40	3.60
May	8	"	To Repairing Both Engines & Govener, facing valve and valve seat 31½ Hours @ 40	12.60
"	9	"	To 4 ft pipe @ 60 cts per foot	2.40
"	"	"	To one 1½ inch Ell	.37½
"	"	"	To one Reducer	.15
"	28	"	To Repairs on Cutter Head for planner	.75
July	5	"	To work on Heater Repairing pipes	1.50
Augest	7	"	To Repairing 2 in globe valve	.60
Oct	30	"	To 10 Hours on Engine Repairing 40	4.00
Decm	2	"	To 2 Nipples and socket	.50
"	18	"	To 8 Hours work	3.20
"	"	"	To 1½ ft 1½ inch pipe @ 60	.90
April	15	1874	To Repairs on plaining Mill Engine	.90
May	28	"	To Repairing Engine & Governer cutting pipe part of time @ mill——	3.40
"	"	"	To Smithing—— ——	.50
June	11	"	To Repairing pump conecting Rod new stud & nutts——	2.25
"	"	"	To Smithing	.75
"	"	"	To Drilling and fitting new Mill Saw	.50
June	15	"	To set screw large	.40
Augest	11	"	To 10½ Hours By Day @ 2.50	2.65
"	17	"	To work @ Mill	.75
Oct	14	"	To 2 studd boalts & Repairing steem chest	2.40
Decm	11	"	To 4 Hours Lath work @ 45 *night*	1.80
"	12	"	To 1 Day @ Mill	2.50
Jan	12	1875	To small pipe & thriading for steem gage	.30
"	"	"	To ½ Day @ Mill	1.25

"	"	"	To one 1¼ inch Ell	.35
March	10	"	To Repairing cock	.80

$56.97½

(I certify that the foregoing is a correct copy of the first bill of D. Drawbaugh against Lee & Bailer, in said exhibit.

FRED M. OTT,
Jan. 27, 1882. Examiner.)

(Copy.)

"Eberly's Mills, Pa.

Lee & Bailer To

Daniel Drawbaugh, Dr.

April	7th	1875	To Repairing govener valve and stuffing box 7½ H	3.00
June	2	"	To Repairing piston Rod	1.10
Augst	11	"	To Repairing large circular saw shaft 3¾ H	1.50
"	13	"	To turning off Rist pin in pit wheel	.90
Sept.	21	"	To Repairing circular saw shaft 2½ H	1.00
March	1	1876	To pump valve 1¼ Hours	.50
"	10	"	To Smithing for cutt off connecting rod	.40
"	"	"	To 3 Hours turning do do do	1.20
"	"	"	To 4 Hours on pump By J. B. Drawbaugh	.80
April	5	"	To cutting, threading and taping 2 inch pipe for throttle valve By J. B. Drawbaugh 3½ @ 30	1.05
May	10	"	To union front end	.50
"	23	"	To cutting, threading and making 1½ inch nipple	.40
"	25	"	To one 1½ inch union and 2 nipples	1.75
"	"	"	To 1½ inch pipe	.45
"	"	"	To 1½ inch thimble	.40

14.95

(I certify that the foregoing is a correct copy of the second bill of Daniel Drawbaugh against Lee & Bailer, in said exhibit.

Jan. 27, 1882. FRED. M. OTT, Examiner.)

"EXHIBIT DRAWBAUGH PATENTS."

FRED M. OTT, Examiner.

(Printed record, page 1087.)

FILE WRAPPERS, DRAWBAUGH PATENTS.

Certified Copy of File Wrapper, Patent No. 8,505, Nov. 11, 1851.

To DANIEL DRAWBAUGH FOR IMPROVEMENT IN STAVE JOINTING MACHINES.

323 156

No. 8505.

DANIEL DRAWBAUGH,

Of White Hill P. O. County of Cumberland State of Pa.

JOINTING STAVES.

Rec'd' 20th June 1851.
Petition " "
Affidavit " "
Specification" "
2 Drawings " "
3 Model Sept. 18, 1851.
Cert. dep.
1 Cash $30. June 20th 1851.

2 Examined *FitzGerald Oct. 20th* 1851.
3 Issue R. C. W. Oct. 23 | 51.
Patented Nov. 11, 1851
Recorded vol. 46 page 272.
Sp. retd. Oct. 13th 1851.
Improvement in Stave Jointing Machines.
Ex'd L. M.
C. F.

Certified Copy of File-Wrapper, Patent No 12,900, May 22, 1855.

To DANIEL DRAWBAUGH FOR STAVE MACHINE.

---

47 5

No. 12,900.

DANIEL DRAWBAUGH,

Of Eberly's Mills County of Cumberland, State of Pennsylvania

MACH. FOR CUTTING STAVES.

(*Oath renewed.*)

Rec'd March 10, 1854.
Petition " " "
Affidavit " " "
Specification" " "
2 Drawings " " "
Model April 10, 1854
1 Cert. dep. $10, March 10, 1854
1 Cash, $20. May 6, 1854. WITHD'L

2 Examined 5. May 55. J. Henry.
Issue Shugert, May 7, 1855.
3 Patented May 22, 1855x.
3x Recorded vol. 63, page 19.
4 Special letter May 6, | 52.
WILSON & Co, Ag'ts,
Washington S.
D. C.
Rej[d] 16th May, 54.
Letter to Applicant, 26th May, 1854.
Spec[n] & 1 Dr. to me June 28, | 54.

WILSON & Co.

Papers to office but not the Drawing, Nov. 9, 1854.

Papers to me April 17, 1855.

J. B. DRAWBAUGH.

Rec[d] do. 18th April. from Applit in person. J. H.
Spf[n] snt. 21st April | 55.
Rec[d] May, 4 | 55.
Nov. 16 | 60.
Inter[ce] with the patents of Moore Clark & Lindsey Feb. 9, | 58 & M. Berayer, April 12, | 59 pending application of W. Sisson.
day of hearing first monday in January 1861.
Day of hearing postponed untill the 4th monday in Jan. 1861.
Letter Dec. 28 | 60.
Posponed untill the fourth monday in Feby, 1861.
parties informed Jan. 26 | 61.
Inter'ence dissolved May 20 | 61.
parties notified May 21, 61.
Limit of Appeal 30 days.
Letter July 27, 1871.
Limit of appeal 30 days.

Stave machine.

Ex'd C. F.

L. M.

Certified Copy of Letter to Daniel Drawbaugh Dated July 27, 1861.

IN RELATION TO PATENT 12,900 FOR STAVE MACHINES.

U. S. PATENT OFFICE,
Wash. July 27-61.

Sir:

You are hereby notified that in the case of appeal (on interference) to the Examiners-in-chief, that by them the decision of the Examiner, rejecting the second and third claims of William Sisson's application, be reversed, and that he is the prior inventor of the device set forth in his third claim. For remedy you can appeal to the Commissioner in person. Limit of appeal thirty days. S. S. F.

D. Drawbaugh,
Eberly's Mills,
Cumberland County,
Penna.

Certified Copy of File Wrapper, Patent No. 38,296 April, 28, 1863.

TO DANIEL DRAWBAUGH FOR IMPROVEMENT IN MILL STONES.

16.7 *Doane.*

No. 38,296.

DANIEL DRAWBAUGH,

Of Eberly's Mills County of Cumberland State of Penn.

MILL STONES.

Rec'd April 6th 1863.
Petition, " " "
Affidavit " " "
Specification " " "
2 Drawings " " "
Model " " "
Cert. dep.
1 Cash $15 April 6th 1863.
Add'l fee Cert.
1 " " Cash $20. April 15 | 63.
Examined April 11, 1863. W. C. Doane
2 Issue Hayes April 14, 1863.
4 Patented Apl 28, 1863. -|-
Recorded Vol. 149, page 40.
Circular April 14—63.
M.

A. B. STOUGHTON,
Present.

Improvement in Mill Stones.
Ex'd. L. M.
C. F

Certified Copy of File Wrapper, Patent, No. 38,472, May 12, 1863.

TO DANIEL DRAWBAUGH FOR IMPROVED MACHINE FOR LEVELING THE FACES OF MILL STONES.

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136 = *d* 21 *Arick*
No. 38,472.

DANIEL DRAWBAUGH,

Of Eberle's Mills County of Cumberland State of Pennsylvania.

LEVELING THE FACES OF MILL STONES.

Rec'd February 23d 1863.
Petition " " "
Affidavit " " "
Specification " " "
2 Drawings " " "
Model " " "
Cert. dep. " " "
1 Cash $15. Feby 23d 1863.
Add'l fee Cert.
1 " " Cash $20 April 25, 1863.
Examined April 13, 1863. Arick.
2 Issue Hayes April 14, 1863.
4 Patented May 12, 1863. -|-
Recorded vol. 149 page 403
Circular April 14 | 63.

J. FRANKLIN REIGART,
L Washn
D. C.

Improved Machine for Leveling the faces of Mill Stones.
Exd L. M.
C. F.

Certified Copy of File Wrapper, Patent No. 51,435, Dec. 12, 1865.

TO DANIEL DRAWBAUGH FOR IMPROVEMENT IN NAIL PLATE FEEDERS.

No. 51,435 1865 *Jayne* 248/3308

1865.

DANIEL DRAWBAUGH

Of Eberle's Mills, County of Cumberland, State of Penna

NAIL PLATE FEEDERS.

Rec'd Aug. 24, 1865.
Petition " " "
Affidavit " " "
Specification" " "
2 Drawings, " " "
Model, " " "
Cert. dep.
1 Cash $15, Aug. 24, 1865.
Add'l fee Cert.
" " Cash $20 Oct^{r} 25 | 65
Examined A. P. Thayer Oct. 24 | 65.
Issue H. McCormick, Octo. 27, 1865.
4 Patented Dec^{r} 12, 1865. -|-
Recorded vol. 187 page 338.
Circular Oct. 27 | 65.

J. F. REIGART,
Prest.

1865.

Improvement in Nail Plate Feeders.
Ex'd L. M.,
C. F.

1865.

Certified Copy of File Wrappers, Patent No. 59,792, Nov 20, 1866.

TO DANIEL DRAWBAUGH FOR IMPROVEMENT IN FAUCETS.

1866.

19 A *Wheeler*
No. 59,792.

DANIEL DRAWBAUGH,

Of Eberly's Mill County of Cumberland State of Penn^{a}.

MOLASSES FAUCET.

(*Case A.*)

Rec'd Sept^{r} 14, 1866.
Petition " " "
Affidavit " " "
Specification " " "
2 Drawings " " "
Model " " "
Cert. dep.
1 Cash $15, Sep 14, 1866.
Add'l fee Cert.
1 " " Cash $20, Nov^{r} 7 | 66.
Examined Oct. 27, 66 Connolly
2 Issue A. M. Stout Nov. 1, 1866.
4 Patented Nov. 20, 1866. *d.*
Recorded vol. page
Circular, Nov. 1, 1866.

MASON FENWICK & LAWRENCE
Present.

1866.

Impt. in Faucets.
Ex'd L. M.
C. F.

1866.

Certified Copy of File Wrapper, Patent No. 59,793, Nov. 20, 1866.

TO DANIEL DRAWBAUGH FOR IMPROVEMENT IN FAUCETS.

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19 1866. *Wheeler*
No. 59,793.

B

DANIEL DRAWBAUGH,
Of Eberly's Mill, County of Cumberland State of Penn^{a}

MOLASSES FAUCET.

(*Case B*)

Rec'd Sept[r] 14, 1866.
Petition " " "
Affidavit " " "
Specification " " "
2 Drawings (4 shts.) " " "
Model, " " "
Cert. dep.
1 Cash $15 Sep. 14, 1866.
Add'l fee Cert.
1 " " Cash $20, Nov[r] 7 | 66.
Examined Oct. 27 | 66. Connolly
2 Issue A. M. Stout Nov. 1, 1866.
4 Patented Nov. 20, 1866. *y*
Recorded vol. , page
Circular, Nov. 1, 1866.

MASON, FENWICK & LAWRENCE

Present.

1866.

Impt. in Faucets.
Ex'd L. M.
C. F.

1866.

Certified Copy of File Wrapper, Patent No. 71,148, Nov. 19, 1867.

TO DANIEL DRAWBAUGH, FOR IMPROVEMENT IN NAIL PLATE FEEDING DEVICE.

1866.

Renewal. *Jayne*

No. 71,148. 72 / 2249

DANIEL DRAWBAUGH,

Of Eberly's Mill, County of Cumberland State of Penn.

NAIL PLATE FEEDER.

Rec'd Oct^{r} 4, 1866.
" *Oct.* 23, 1867.
Petition " " "
" *Oct.* 23, 1867.
Affidavit " " "
" *Oct.* 23, 1867.
Specification " " "
Drawings " " "
Model " " "
Cert. dep.
1 Cash $15 Oct^{r} 4 1866
" " *Oct.* 23, 1867
Add'l fee Cert.
1 " " Cash $20, Sept. 12 | 67.
Examined Nov. 4 | 67 = Jayne
2 Issue A. M. Stout, March 5, 1867.
1 Issue A. M. Stout, *Nov.* 6 | 67
4 Patented Nov. 19, 1867 -|-.
Recorded vol. page
Circular, March 7 1867
$20. Returned Mason Fenwick & L. to Atty's Sept. 13 | 67.
P'rest.

L. D. P. 1866

1866.

Spec. retd. Jan^{y} 23 | 67.
Thin Drawing to Mason Fenwick & Lawrence Jan 25 | 67.
Amd^{t} ret^{d} Feby 26 | 67.
Ex'd. H. M. H.
L. J.
Impt. Nail plate feeding device

1866.

Certified Copy of Letter from Daniel Drawbaugh, No. 211,322, to Commissioner of Patents, Sept. 19, 1878.

FOR IMPROVEMENT IN EARTH BATTERIES FOR ELECTRIC CLOCKS.

HON. COMMISSIONER OF PATENTS:

Dear Sir,

Enclosed find P. M. Order for fifteen dols ($15) the first fee on application for Patent by Daniel Drawbaugh, on Earth Batteries. The Model, Drawing, & Specification, is forwarded by express. Please admit informal drawing for examination of case immediately, and in due time I will have drawing renewed. This application is supplemental to application by same party on Magnetic Clock, filed May 27, 1878.

Yours truly,

Harrisburg Pa
Sept. 19th 1878

THEOPHILUS WEAVER,
Atty for Daniel Drawbaugh.

Ex'd, J. A. W
M. McK.

Certified Copy of File Wrapper, Patent No. 211,322, Jan. 14, 1879.

TO DANIEL DRAWBAUGH, ASSIGNOR, FOR IMPROVEMENT IN EARTH BATTERIES FOR ELECTRIC CLOCKS.

Div. 16. 1878. *Townsend* $\frac{43}{50}$

No. 211,322. *Assigned*

DANIEL DRAWBAUGH,

Assor, to Theodore Grissinger of Mechanicsburg, Jacob H. Grissinger and Jacob E. Shettel of Shepherdstown Pa. ¼ to each. Of Eberly's Mills, County of Cumberland, State of Pennsylvania.

EARTH BATTERIES.

Rec'd, Sept. 20, 1878.
Petition " " "
Affidavit " " "
Specification " " "
Drawing A. F. E. " " "
Model " " "
Cert. dep.
1 Cash $15 Sept. 21, 1878
Add'l Fee Cert.
1 " " Cash $20, Dec. 21, 1878.
Examined Nov. 11.— 1878. H. C. Townsend.
2 Issue Dec. 18. 78 F. A. Seely.
Patented Jan. 14 1879.
3 Circular, Dec. 19, 1878.

THEOPHILUS WEAVER,
Harrisburg
Pa.

1878.

CONTENTS.

Application papers.
1. Brief Nov. 11, 1878.
2.
3.
4.
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6.
7.
8.

9.
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11.
12.
13.
14.
15.
16.
17.
18.

36 *Electricity Batteries.*

TITLE.

Improvement in Earth Batteries for Electric Clocks.
Ex'd J. A. W.
M. McK.

Certified Copy of File Wrapper, Patent No. 225,577 March 16, 1880.

TO DANIEL DRAWBAUGH, ASSIGNOR, FOR IMPROVEMENT IN WATER MOTORS.

1879.

No. 225,577. *Assigned* $\frac{25}{75}$

DANIEL DRAWBAUGH,

Assor ; of two thirds his right to Edgar W. Chellis of Harrisburg Pa.
Of Eberly's Mills County of Cumberland State of Pennsylvania.

WATER WHEELS.

Rec'd	July	2,	1879.
Petition	"	"	"
Affidavit	"	"	"
Specification	"	"	"
Drawing 2 sheets.	"	21,	"
Model.	"	2,	"

Cert. dep.
1 Cash, $15, July 2, 1879.
Add'l Fee Cert.
1 " " Cash, $20, Feby. 25, 1880.
Examined, Nov. 15, 1879. Oscar Woodward.
2 Issue, Nov. 17 | 79, Arthur W. Crossley.
Patented, Mar. 16, 1880.
3 Circular Nov. 17th, 1879

THEOPHILUS WEAVER,
Harrisburg, Pa.

1879.

CONTENTS:

Application papers.
1. Rej., Aug. 6th | 79.
2. *Amd't, Aug.* 11th 1879.
3. *Amd't, Aug.* 15th 1879.
4. Rej., Aug. 20th | 79.
5. *Amd't, Aug.* 26th 1879.
6. *Amd't, Aug.* 26th 1879.
7. Rej., Aug. 29th | 1879.
8. *Amd't, Sept.* 10th 1879.
9. Rej., Sept. 17th | 79.
10. *Amd't, Nov.* 11th 1879.
11. Rej., Nov. 13th | 79.
12.
13.
14.
15.
16.
17.
18.

Div. 9.

TITLE,

Improvement in Water Motors.

103 Pumps.
Hydraulic Engines.
Ex'd, C. F.
L. M.

Certified Copy of File Wrapper, Patent No. 229,592, July 6, 1880.

To DANIEL DRAWBAUGH ASSIGNOR, FOR IMPROVEMENT IN ROTARY MEASURING FAUCETS.

Div. 16. 1879. *Townsend* $\frac{69}{8}$

No. 229,592.

DANIEL DRAWBAUGH,

Assor of two thirds his right to Edgar W. Chellis, of Harrisburg, Pa. Of Eberly's Mill County of Cumberland State of Pennsylvania.

ROTARY MEASURING FAUCETS.

Rec'd Jan'y 14, 1879.
Petition " " "
Affidavit " " "
Specification " " "
Drawing " " "
Model " " "
Cert. dep.
1 Cash, $15. Jany. 15, 1879.
Add'l Fee Cert.
1 " " Cash, $20. June 15, 1880.
2 Examined May 21, 1880. H. C. Townsend.
Issue May 24, 1880. Arthur W. Crossley.
3 Patented July 6, 1880.
Circular May 24, 1880.
HILL & CHURCH,
Washington, D. C.

1879.

CONTENTS.

Application papers.
1. Rejected Jan. 30" 1879.
2. *Amd't, Feb.* 3d 1879, "A."

3. Rejected, Feb. 24, 1879.
4. *Amd't. Mar.* 14, 79, "*B. C.*"
5. Rejected, March 26, 1879.
6. Letter to office, March 24, 1879.
7. Rejected, March 26, 1879.
8. *Amd't. Mar.* 28" 79. "*D.*"
9. Int'f. 69 | 60. Mch. 29 79.
10. Decided in favor app't Jan. 15, 1880.
11. *Sub. Spec. Apr.* 27 | 80.
12. Power of Atty, May 3, | 80.
13. Briefed May 21, 1880.
14.
15.
16.
17.
18.

TITLE.

Improvement in Rotary Measuring Faucet. . . 4

78. *Measuring Instruments.*
Liquid Measures.

Ex'd, C. F.
L. M.
30

Certified Copy of an Assignment from Daniel Drawbough to Klemm, et al, Recorded in Liber, U[25], Page 85.

Whereas, I, Daniel Drawbough, of Eberly's Mills, in the County of Cumberland, and State of Pennsylvania, have invented certain new and useful improvements in the transmission of vocal speech, and the apparatus to be used for such purpose for which I am about to make application for letters patent of the United States. And Whereas Frank A. Klemm, of the City, County and State of New York, Ernest Marx, of the same place, Simon Wolf, of the City of Washington, District of Columbia, and Moritz Loth, of the City of Cincinnati, County of Hamilton, State of Ohio, are each of them desirous of acquiring an interest in said invention, and in the letters patent to be obtained therefor.

Now, therefore, to all whom it may concern, be it known, that for, and in consideration of the sum of Twenty Thousand Dollars to me in hand paid, the receipt of which is hereby acknowledged, I, the said Daniel Drawbough have sold, assigned, and transferred and by these presents, do sell, assign and transfer, unto the said Frank A. Klemm, Ernest Marx, Simon Wolf and Moritz Loth, the full and exclusive right to the said invention as fully set forth and described in the Specification prepared and executed by me, dated the 21st day of July 1880, preparatory to obtaining letters patent of the United States therefor, and I do hereby authorize and request the Commissioner of Patents to issue the letters patent for my said invention to the said Frank A. Klemm, Ernest Marx, Simon Wolf, and Moritz Loth each as assignee of one undivided fourth part thereof, for the sole use and behoof of my said named Assignees and each of their legal representatives. In Testimony of which I have hereunto set my hand and affixed my seal this Twenty first day of July 1880.

DANIEL DRAWBOUGH. [SEAL.]

In presence of

M. W. JACOBS

E. W. CHELLIS.

Recorded July, 22d 1880.

Ex'd V. E. L.

"EXHIBIT REIS TELEPHONE PUBLICATION."

FRED M. OTT, Examiner.

Feb. 20, 1882.

(Printed record, page 1104.)

THE INVENTION OF THE TELEPHONE.

BY P. H. VANDER WEYDE, M. D.

In connection with Mr. Gray's application of the telephone to the simultaneous transmission of several different telegraphic messages over one wire at the same time, and his paper read before the American Electrical Society (published on page 92, SCIENTIFIC AMERICAN SUPPLEMENT for February 5), it may be interesting for the readers of this paper to obtain some information in regard to the invention of the telephone, by Reuss. As mentioned in the article above referred to, Page and Henry observed that, by rapid magnetization, and demagnetization, iron could be put into vibrations isochronic with the interruptions of the current; and later, Marian experimented extensively in this direction, while Wertheim made a thorough investigation of the subject, which induced Reuss, of Friedrichsdorf, near Homburg, Germany, to apply this principle to the transmission of musical tones and melodies by telegraph; and he contrived an apparatus which we represent in the engravings.

The telephone of Reuss consists of two parts, the transmitting and the receiving instrument. Fig. I represents the former, and is placed at the locality where the music is produced; Fig. II, the latter, is placed at the station where the music is to be heard, which may be a distance of 100, 200 or more miles, in fact, as far as the battery used can carry the current: while the two instruments are connected with the battery and the telegraph wire in the usual manner. One pole of the battery is connected with the ground plate, the other with the screw, marked 2 in our Fig. I, and thence over a thin copper strip, *n*, with the platinum disk, *o*, attached to the center of

AMERICAN BELL TELEPHONE COMPANY,-18

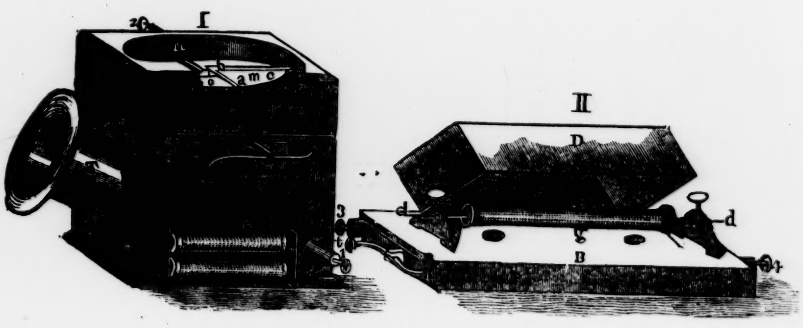
the membrane stretched in the large top opening of the hollow and empty box, K, intended to receive and strengthen the vibrations of the air, produced by singing before the funnel-shaped short tube attached to the opening in T. Over the platinum disk, *c*, attached to the elastic membrane, is a platinum point attached to the arms, *b c* and *b* K, while a set screw brings this point in slight contact with the platinum disk mentioned. A part of the box is represented as broken and removed, in order to show the internal construction. The strip, *a b c*, is connected with the end, *s*, of the switch, *t s*, and the screw connection, 1, at the lower right hand corner, and also, through the telegraph wire, to the instrument, Fig. II, at the receiving station, which may be situated at the distance of many miles. Here the current enters by the screw connection, 3, and passes through the spiral, *g*, surrounding the soft iron wire, *d d*, of the thickness of a knitting needle, and leaves the apparatus at the screw connection 4, whence it obtains access to the ground plate, and so passes, through the earth, back to the battery. The spiral and iron wire, *d d*, is supported on a hollow box, B, of thin board; while a cover, D, of the same material is placed on top, all intended to strengthen the sound produced by the vibrations which the in erruption of the current caused in the iron wire, *d d*, so as to make these vibrations more audible by giving a large vibratory surface, in the same way that the sounding board of a pianoforte strengthens the vibrations of the air caused by the strings, and makes a very weak sound quite powerful.

If a flute be played before the opening, T, or if a voice be singing there, the vibration of the air inside the box, K, causes the mem brane, *m*, to vibrate synchronically, and this causes the platinum disk, *o*, to move up and down with corresponding frequency. At every downward motion the contact of this disk with the platinum point, under *b*, is broken; and therefore the current is interrupted as rapidly as the vibrations occur. Let, for instance, the note C be sounded this note makes 64 full vibrations in a second, and we have, therefore, 64 interruptions of the electric current, which interruption will at once be transmitted through the telegraph line to the receiving instrument, and put the bar, *d d*, into exactly similar vibrations, making the very same tone, C, audible; and so on for all other rates of vibration. It is clear that, in this way, not only the

rhythm of music can be transmitted (and this can be done by the ordinary telegraph), but the very tones, as well as the relative durations and the rests between them, can thus be sent, making a full and complete melody. The switch, *ts* Fig. I, is intended, in connection with a similar one in Fig. II, to communicate between the stations, with the help of the electro-magnet, E E, to ascertain if station, Fig. II, is ready to receive the melodies: then it gives the signal, by manipulating the switch, which is received by the attraction of the armature, A, the latter arrangement being a simple Morse apparatus, attached to the telephone.

Professor Heisler, in his "*Lehrbuch der technischen Physik*" (3d edition, Vienna, 1866), says, in regard to this instrument: "The telephone is still in its infancy; however, by the use of batteries of proper strength, it already transmits not only single musical tones, but even the most intricate melodies, sung at one end of the line, to the other, situated at a great distance, and makes them perceptible there with all the desirable distinctness." After reading this account in 1868, I had two such telephones constructed, and exhibited them at the meeting of the Polytechnic Club of the American Institute. The original sounds were produced at the further extremity of the large building (the Cooper Institute), totally out of hearing of the Association, and the receiving instrument, standing on the table in the lecture room, produced (with a peculiar and rather nasal twang) the different tunes sung into the box, K, at the other end of the line; not powerfully it is true, but very distinctly and correctly. In the succeeding summer I improved the form of the box, K, so as to produce a more powerful vibration of the membrane, by means of reflections effected by curving the sides; I also improved the receiving instrument by introducing several iron wires in the coil, so as to produce a stronger vibration. I submitted these, with some other improvements, to the meeting of the American Association for the Advancement of Science, and on that occasion (now seven years ago) expressed the opinion that the instrument contained the germ of a new method of working the electric telegraph, and would undoubtedly lead to further improvements in this branch of Science, needing only that a competent person give it his undivided attention, so as to develope out of it, all that it is evidently capable of producing.

Before leaving this subject, I wish to draw special attention to the fact that the merits of this invention consist chiefly in the absence of musical instruments, tuning forks, or their equivalents, for producing the tones: any instrument will do, flute, violin, human voice, etc. If the aerial vibrations are only conducted into the box, Fig. I, the apparatus will send the pitch as well as the duration of the different tones, with the rests between, therefore not only transmitting perfect rhythm, but a complete melody, with its long and short notes. The two parts of the apparatus may even be connected each to a separate pianoforte; and if this were done in a proper manner, a melody played on the pianoforte connected with the transmitting instrument, Fig. I, would be heard in the pianoforte, at a great distance, connected with the receiving instrument, Fig. II.



"PROFESSOR REUSS' TELEPHONE."

Scientific American, March 4, 1876, *page* 145.

(Respondents' printed record, page 1104.)

"EXHIBIT EVERITT ACOUSTIC TELEGRAPH."

FRED. M. OTT, Examiner.

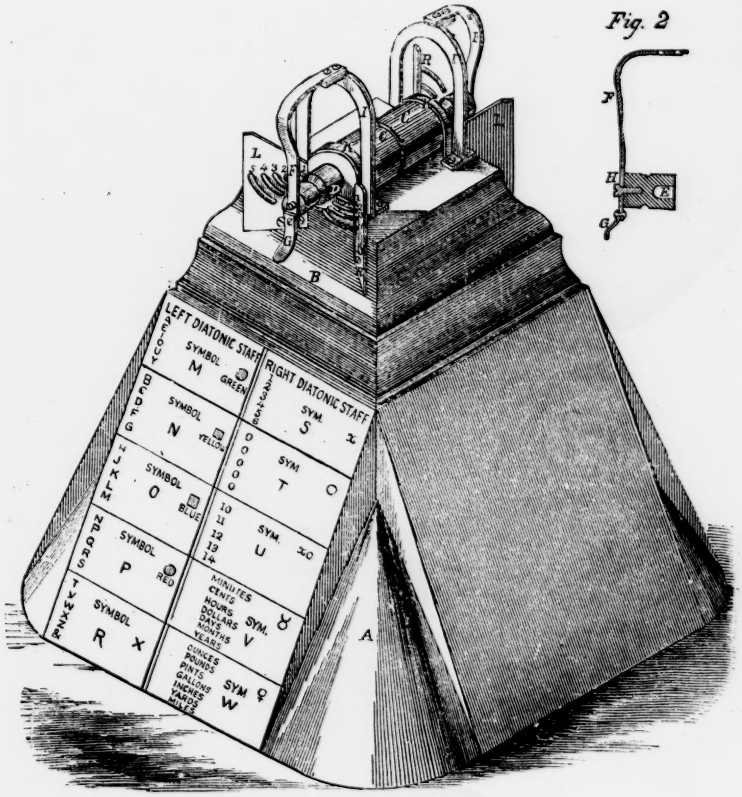
(Printed record, page 1105.)

IMPROVED ACOUSTIC TELEGRAPH.

The Acoustic Telegraph is intended by the inventor to supersede the electric, by communicating intelligent sounds across the Atlantic Ocean, or wherever an electric unit is unable to retain its positive character, in its transit through elements rich in electricity. The nature of the invention consists in eliminating phonic units or sounds of similar and dissimilar intensities and chimes from the non-metallic atoms of the atmospheric air, and so arranging them as to constitute a phonic formula, for each letter of the alphabet, each arabic notation and expression of valuation; every one of which is represented by its own distinguishing symbol. These symbols are geometric, mathematic, and astronomic in their form and are sounded by the aconglottic battery, mounted upon the marble pyramid as shown in the engraving. These intensities and symbolic sounds are so conjoined and divided by the silent pauses of diatessarons that several orders of sound are thus created, each one of which represents certain letters when sounded at certain intervals, and consecutively from the different bars of the left diatonic staff. The silent diatessarons are of two kinds, the one calculated by seconds of time, the other by counting numbers. For pulpit and parlor purposes the one of numbers is used; and is divided into silent commas, equal to a space of time necessary to count one; into silent semicolons, colons, and periods; equal to spaces of time required to count one, two; one, two, three; one, two, three, four, respectively; for distant purposes by land and sea, the one of seconds of time must be used—and is divided into silent commas equal to two seconds of time by the watch—into silent semicolons equal to four seconds of time, into silent colons equal to six seconds of time, and into periods of ten seconds of time.

The letter A, represents the marble base of the acoustic telegraph B, the pedestal of the aconglottic battery, whose several parts are named after the ossiculæ of the anatomical ear. C. is the incus; it forms the starting point upon which the different intensities and chimes of sound are elicited from the non-metallic atoms of the air; D, is the malleus; it is made to compress the atoms of the air, suddenly and sharply upon the face of the incus and evoke the silence therefrom. E, in Fig. 2, is the phonic fossa, in the center of the face of the malleus; it regulates the phonic units, and directs them through the incus. F, is the tympanum; it creates and modifies the various intensities and chimes of sound, by striking the facial malleus and phonic fossa upon the facial incus from various distances therefrom. G, is the key; it enables the operator to strike off all phonic formulas classed under the different orders of sound. H, is the orbicular; it receives the various sounds from the opposite side, and inducts them into the nervous papillæ of the index finger and thumb tips which direct them to the spiritual sense of hearing re iding within the brain. A copper wire armed with a small metallic nipple at one end and the other inserted into the orbicular, will convey the chime of the sound if the nipple be placed within the acoustic trumpet of the external ear; and while listening and receiving sounds, either the nipple must be worn in the ear, or the tip of the thumb or finger must be pressed upon the orbicular and retained there during the conversation. I, is the stapes; it is mounted over the incus and gives strength and support to the tympanum and key; K, is a metallic rim which encircles the edge of the facial incus and retains the solid cylinder in its place. The lines of division upon the cylindrical incus marked C1×division represent a bisection of the aconglottic battery, each one of which forms a complete machine, when the two sectional faces of the incus are connected by copper wire; such an arrangement enables not only those who are deaf-and-dumb from anatomical defection, but those who can talk and hear, who by length of distance from each other over land or water are equally deaf-and-dumb to each other, to hear through the wire and converse together. One of these divisions of the battery can also be used for the church services of a deaf-and-dumb audience, by means of radiating copper wires connected and centered in the facial incus, diverging fan-like toward the assembly; so many members, so many wires, the dis-

tal ends of which are held by the finger and thumb tips The clergyman evokes the different phonic formulas at the key end of the battery, and the whole audience simultaneously receive, hear, arrange, and construe this phonographic language into the Word of Life. L is the left diatonic staff. It has five bars, from each of which a different order of



DR. EVERITT'S ACOUSTIC TELEGRAPH.

sound proceeds; and each order is represented by a different symbol. The bars are placed at different distances from the facial incus, and from one another; and together, their sounds represent and express all the letters of the alphabet.

The 1st Bar, creates the vowel order of sounds, M; its symbol is a circular cavity O, colored green; one such symbol sounded expresses the

phonic formula of the letter A; two such symbols sounded denote the phonic formula of the letter E, and so on to Y, by sounding six similar symbols consecutively. The 2d Bar, generates the mute order of sounds, N; its symbol is a solid cube colored yellow; one such symbol sounded expresses the letter B; two such symbols sounded denote the letter C, and so on consecutively to five sounds representing G. The 3d Bar, produces the semi-vowel order of sounds O; its symbol is a hollow cube colored blue; one such symbol sounded expresses the letter H; two such consecutive sounds denote the letter J; onward to M, which is denoted by five such sounds. The 4th Bar, incepts the consonant order of sounds P; its symbol is a red disc; one such symbol sounded expresses the letter N, onward to S, which is announced by five such sounds. The 5th Bar, creates the relative order of sounds, Q; its symbol is the arithmetic multiplier ×, colored black; one such symbol sounded expresses the phonic formula of T, onwards to V, W, X, Z, &c., by two, three, four, five, six, consecutive sounds, similar to one another, but differing and dissimilar from the other orders, as each other of them differ from one another.

R is the right diatonic staff; it is composed of four intermediate bars, and from each one of which an intermediate order of sounds, differing from those of the left diatonic staff, is generated; and each order is represented by a separate symbol. The 1st Bar creates the fulcimen order of sounds S. Its symbol is the algebraic x, colored black; one such symbol sounded expresses the phonic formula of digits, and one such sound expresses the number one of anything; two such symbols sounded consecutively denote the number two, and so on to nine. The 3d Bar generates the semi-fulcimen order of sounds T. Its symbol is the geometric sphere O, colored black. One such symbol sounded expresses the phonic formula of cyphers; and one such sound simply denotes one cypher 0. Two such sounds consecutively sounded denote two cyphers 00, and onward; so many cyphers so many sounds.

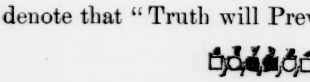
The 1st and 3d Bars conjoined create the Bi-Fulcimen order of sounds U. Its symbol is the XO combined, and expresses the number ten 10—onwards to 99. The 1st and 3d Bar also create the Trifulcimen order of sounds. Its symbol is XOO, and expresses the number 100 onward to nine hundred and ninety-nine. The Quadrufulcimen order of sounds is also created by the 1st and 3d Bars, and denotes the number 1000. Its symbol is XOOO—onward to nine thousand nine hundred and ninety-nine: any other new order may be in this way created and added, so

that the highest mathematical expression of figures may with ease be registered by the Acoustic Telegraph. The 2d Bar produces the Valorum order of sounds V. Its symbol is the Astronomic Taurus ♉, colored black. One such symbol sounded expresses the Phonic Formula of Minutes of time. Two such symbols sounded consecutively expresses the formula of cents in money, and so on to hours, dollars, days, months, years; the last of which is denoted by seven such symbols consecutively sounded. The 4th Bar incepts the semi-valorum order of sounds W. Its symbol is the astronomic Venus ♀, colored black. One such symbol sounded expresses the Phonic Formula of ounces—fluid or solid. Two such sounds consecutively sounded denote sounds in weight; and so on to pints, gallons, inches, yards, miles—the last of which is expressed by seven such sounds, one directly after the other.

In writing out this phonographic language, the number of symbols to be sounded is placed above them, as their exponents, in all instances—and in sounding the valorum order of sounds the Phonic formula must always precede the amount to be expressed by the fulcimen sounds—one hundred dollars is sounded and expressed in this way: $\overset{4}{\text{♉}}:\overset{1\ 2}{x\text{O}}$. that is to say, 4 sounds are to be sounded from the second bar R D staff, 1 sound from the 1st Bar and 2 from the 3d Bar. The four sounds of Taurus are to be consecutive, then observing the silent semicolon the auditor will know that these four sounds mean dollars; he waits the amount of dollars, and you send him one fulcimen sound and two semifulcimen sounds, directly, one after the other; a silent period equal to counting one, two, three, four, ensuing after the last sound, indicates to the auditor that just one hundred dollars, and no more or less, is the subject of conversation. One thousand miles are thus written and expressed: $\overset{7}{\text{♀}}:\overset{1\ 3}{x\text{O}}$. The seven sounds of Venus are to be consecutive, then the silent semicolon and period give force and character to the sound received by the auditor.

In writing and conversing the sounds of letters and words and sentences are stroked, and are conveyed and received by the listener, who analyses, combines and forms them into intelligencies of the highest order. Conversation may be carried on between those who are absent and those who are present by the following symbols: ♚,♁,♚:♁,♚:♇,♁,♐,♁. These different orders of sounds sounded in this way express the fact that "God is Love."

denote that "Truth will Prevail."



These are the first words sounded by the Acoustic Telegraph in the order of conversation, and express the fact that "Lincoln is the Liberator Magnus." Whenever the numbers are placed over symbols it implies that each sound is to be sounded rapidly one after the other; and the semicolon denotes that after the phonic formula of any letter has been sounded the operator counts one, two, and after having sounded a complete word he counts one, two, three, and having finished a sentence he counts one, two, three, four, quickly one after another; and whatever the distance, the sounds are received in the same precise consecutive order. The position of the body and the limbs is of importance while conversing by means of the Acoustic Telegraph: the head and chest must be upright, dignified, natural and slightly inclined forward; the seat elevated so as to give full view of and command over the key and bars of the Battery, and the arms be well supported by the table upon which it stands: so as to be free to act and move and rest while the one evokes the sounds and the other receives them from the Orbicular or metallic nipple. Those who use the Orbicular must *always* preserve the *left* index-finger and thumb for that special purpose and keep the pulpy tips moist and clean with soap and pumice stone, and never allow the nail to come in contact with it during the time of receiving sounds. The *right* index-finger tip must be *always* the one to *exercise* the key, and never be transferred to the Orbicular. The greatest care must be observed in bringing the edge of the facial malleus directly opposite the points of the Bars from which the phonic formula of all symbolic letters proceed. The point of the index-finger is placed under the key, and drawn from the facial incus to the point of that bar which is to elicit the order and formula of sound required and allowed suddenly to slip from the point in the order directed by silent diatessarons.

A patent for the above was granted on the 17th day of November, 1863. The inventor is Lancelot H. Everitt, M. D., Member of the Royal College of Surgeons, Edinburgh, Resident Physician of New-Orleans, La.

[*From Scientific American of Dec.* 12, 1863, *Vol. IX, No.* 24, *New Series.*]

EXHIBIT MANUFACTURER AND BUILDER ARTICLE, MAY, 1869.

[*Respondents' printed record, p.* 1271.]

THE TELEPHONE.

DR. VAN DER WEYDE.

One of the most remarkable recent inventions connected with telegraphy is the telephone, an instrument which transmits directly the pitch of a sound by means of a telegraph wire,—either an air wire or submarine cable; so that, for instance, when the operator at one end of the wire sings or plays on an instrument any tune, as "Yankee Doodle" or "Hail Columbia," it will be heard and distinguished plainly at the other end. This invention may, in its present state, have no direct practical application, but be a mere scientific, although highly interesting curiosity; but who can say that it does not contain the germ of a new method of working the telegraph, or some other useful practical purpose?

The telephone is not the result of an accidental discovery, but of a thorough study of the laws of electro-magnetism and of sound. It is founded on the fact that the difference in pitch of different tones is caused by different velocities of vibrations of the elastic sounding body; which vibrations are transmitted to and by the air with exactly the same velocity, and from the air may be communicated to a properly stretched membrane, like a piece of bladder or very thin sheet of india rubber, stretched like a drum head, which these also will vibrate with exactly the same velocity as the air and the original sounding body, be it the human voice, organ pipe, string, or any musical instrument. If, now, at the centre of this little drum head there be attached a small disk of some metal not easily burned by electric currents—for instance, platinum—while at the same time a platinum point may, by means of a screw be so adjusted as

AMERICAN BELL TELEPHONE COMPANY,-18

FIG. 3.—THE RECEIVER.

to come very nearly in contact with this small platinum disk, it is clear that, when the membrane is put in vibration, a succession of contacts between the disk and point will be produced, of which the number in each second will exactly correspond with the number of vibrations in each second of the sounding body, or the tone produced by it. That part of the apparatus which serves to send off the tune or melody is represented in the illustration, Fig. 2. It consists simply of a square wooden box, provided at the side with a kind of mouthpiece similar to that of a speaking tube, and at the top with an opening, over which the membrane just mentioned has been stretched. The small piece of platinum attached to the centre of this little drum head is, by means of a very flexible strip of some metal that conducts well, attached to one pole of the galvanic battery, of which only one cup is represented in the figure, although for a long wire several cups will, of course, be required. The reason why this connection near the platinum disk is a flat, thin and flexible strip is, that

any rigidity would interfere with the freedom of vibration of the membrane to which it is attached. The point coming in contact with this small vibrating disk is connected with the ground wire, the other pole of the battery with the air wire or submarine cable. It is clear, from this explanation, that at every contact of the platinum point a wave of electricity will be sent over the wire, and as many waves in a second as there are contacts; and as there are as many contacts as there are vibrations in every second, the number of electric waves will be always exactly equal to the number of vibrations corresponding with the pitch of each tone, be it fifty, one hundred, two hundred, or five hundred in every second.

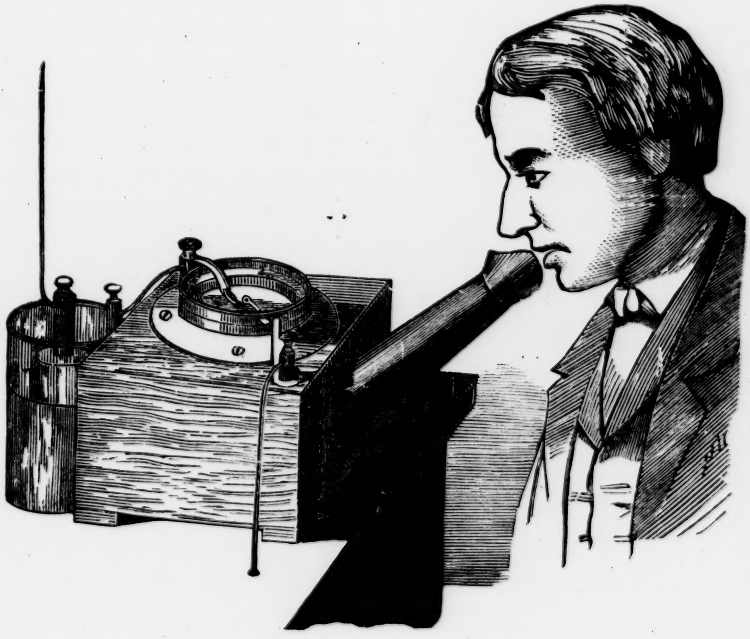


FIG. 2.—TRANSMITTING APPARATUS.

The instrument in which this succession of waves is made audible at the other end of the telegraph wire is founded on the fact—first investigated by Professor Henry, of the Smithsonian Institute at Washington—that iron bars, when becoming magnetic by means of electric currents passing around them, become slightly elongated, and at the interruption of the current are at once restored to their original length. It is repre-

AMERICAN BELL TELEPHONE COMPANY,-18

sented in the cut, Fig. 3, and consists of an elongated wooden box, of which the top is made of thin pine wood, similar to the sounding board of a stringed musical instrument, to which are attached two bridges carrying long pieces of moderately thick and very soft iron wire, which, for nearly their whole length, are surrounded by a coil similar to the coil of the electro-magnets used in telegraphing. One end of this coil is attached to the telegraph wire, the other to the ground wire, as represented in the figure. At every instant that a contact is established at the station where the sound is produced, and a current wave thus transmitted, these wires will become magnetic, and consequently elongated; and they will be shortened again at every interruption of the current. And as these currents and interruptions succeed each other with the same velocity as the sound vibrations, the elongations and shortenings of the magnetized iron wires will succeed each other with exactly the same velocity, and consequently they will be thrown into a state of longitudinal vibrations corresponding with the original musical tone, which vibrations will then be communicated to the sounding board in exactly the same manner as is the case with the vibrations of the strings in all stringed instruments, thus becoming more audible at the receiving station.

It is clear, from the foregoing explanations, that no quality of tone can be transmitted. Much less can articulate words be sent, notwithstanding the enthusiastic prediction of some persons, who, when they first beheld this apparatus in operation, exclaimed that now we would talk directly through the wire. It is from its nature able to transmit only pitch and rhythm—consequently melody, and nothing more. No harmony, nor different degrees of strength or other qualities of tone can be transmitted. The receiving instrument, in fact, sings the melodies transmitted, as it were, with its own voice, resembling the humming of an insect, regardless of the quality of the tone which produces the original tune at the other end of the wire.

This instrument is a German invention, and was first exhibited in New York, at the Polytechnic Association of the American Institute, by Dr. Van der Weyde. The original sounds were produced at the further extremity of the large building (the Cooper Institute,) totally out of hearing of the association: and the receiving instrument, standing on the table of the lecture room, produced with its own rather nasal twang the different tunes sung at the other end of the line, rather weakly, it is true, because of the weak battery used, but very distinctly and correctly.

"EXHIBIT WHEATSTONE UNDULATORY CURRENT TELEGRAPH."

FRED M. OTT, Examiner.

(Printed record, page 1191.)

[2—175.]

DEPARTMENT OF THE INTERIOR,

UNITED STATES PATENT OFFICE.

To all Persons to whom these Presents shall come,

Greeting:

THIS IS TO CERTIFY That the annexed is a true copy from the Bound Volumes of the Library of this Office of Figures 1, 2, 3, 11 & 12 of the Drawings and the text descriptive thereof, said copy to be found in a Volume entitled "The Telegraphic Journal," Vol. 1, 1873.

IN TESTIMONY WHEREOF I, V. D. Stockbridge, Acting Commissioner of Patents, have caused the Seal of the Patent Office to be affixed this thirteenth day of December, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

[SEAL.]

[8681—10,000.]

V. D. STOCKBRIDGE,
Acting Commissioner.

The Telegraphic Journal and Electrical Review, Vol. 1, London, November, 1872, & November, 1873.

On Sir Charles Wheatstone's Electro-Magnetic Counters.
By Thomas T. P. Bruce Warren, Electrician to Hooper's Telegraph Works, Limited.

An interesting article on these useful instruments appeared in the first number of this Journal. It is with the view of supplementing this paper with my experience that I pre-ume to offer the following remarks upon them. What is said, generally, of their action is sufficiently clear and exhaustive as to require no further explanation, but what I wish to do is to point out a few cases in which the instrument, from failing to fulfil its purpose, may be prematurely condemned.

A simple experiment will more clearly illustrate what I have to convey, and on this account I will preface my further observations by reference to Diagram No. 1, of the paper referred to, which is subjoined.

(Fig. 11.)

When the lever carrying the armature is suddenly and forcibly pressed down, a momentary current is produced, and similarly, on releasing the lever so that the armature regains its position, another momentary current is produced.

This forms a very interesting experiment, when the two terminal wires are connected with an ordinary "detector," in showing the opposite character of the induced currents produced on breaking and making contacts, as in taking off and replacing the armature.

Now if the armature be very carefully and slowly removed, the "detector" will not be affected, nor will it be affected if the same be made to return slowly to the poles of the magnet. We must not consider, because the needle of the "detector" is not deflected, that no current is produced; for if a more sensitive galvanometer be employed, the same phenomena may be observed as with the "detector," in the previous experiment.

From these experiments it is evident, when registering the number of the revolutions of a wheel, that if the releasing of the armature takes place slowly the shock or current will not be strong enough to actuate the mechanism which moves the pinion-wheel in the train of the indicator, and if the armature be allowed to return slowly the same result will follow.

It so far appears that up to a certain limit the strength of the current induced will vary with the force and suddeness with which the armature is pulled away, and conversely when regaining its position.

In Fig. 3, of the paper referred, to a method is given of fixing the lever to a machine, but if the motion of the wheel be slow we involve the conditions already pointed out. To attach multiplying gear is not only expensive, but in most cases impracticable.

The simplest method of getting over this is to fix a small steel pin in the rim of the wheel, near its edge, where we gain the velocity required to

(Fig. 12.)

make the contacts more suddenly and forcibly. The length of time between the contacts necessary to register one complete indication is perfectly immaterial, so that should the wheel stop after the armature has been pushed off, and we get the first current only, the second follows immediately after the wheel or pin clears the lever.

The attachment as shown in the Diagram No. 3, will do very well with a machine driven at a high speed, or even at a tolerably quick rate, neither of which is the case with the measuring wheel of a cable-making machine.

Another precaution worth pointing out is, that the lever should be withdrawn without giving rise to any liability from the acting power to produce any serious vibration or jarring as to allow the lever to leave its position after the completion of one indication.

If an auxiliary lever be employed a strong spring should be attached to the arm nearest to the pin, which will completely settle the shivering motion which might be communicated to the armature and its lever.

As two or more indicators may be driven by the same set of magnets, these instruments would be extremely useful in cases where it is wished to convey the indications to two or more places at the same time.

Exd. E. L. L.
C. F.

23743—D.

The Telegraphic Journal and Electrical Review, Vol. 1, London, November, 1872, & November, 1873.

An application of Magneto Electricity by Sir Charles Wheatstone.

Many means have been devised for the purpose of registering at a distance the periodical motions of a machine, or the number of

changes in the position of a turnstile or a door. Those of the earliest date are merely mechanical, and their use is limited by the short distance to which the motions can be communicated. Mechanical registers are of necessity cumbrous, and must remain exposed to view and dust, or be covered at great expense.

So far back as 1840 Sir C. Wheat-stone invented an instrument for this purpose, founded on the principles of his electro-magnetic step-by-step telegraph when voltaic electricity was applied thereto. But batteries involve troublesome chemical operations, and if not constantly attended to their inactivity causes the failure of the entire system. Voltaic batteries are subject to many accidents through which a temporary irregularity in the registration may ensue; they may be situated in so cold a place that in winter the exciting liquid is frozen or the vases

(Fig. 1.)

cracked or they may be exposed to the heat radiated from hot-air or water-pipes or other source of warmth, and the liquid evaporated to crystallisation, the crystals forming a non-conducting coat upon the electrodes of the pile. But, given success with the battery, the rapidly succeeding contacts render constant inspection necessary. The spark that appears on breaking contact is nothing less than a minute particle of the metal of the contact-point in a state of incandescence, and it follows that where the current passes and is interrupted many times a minute, the

(Fig. 2.)

contact-points must speedily be worn away. This difficulty was subsequently overcome by the inventor employing magneto-electric currents, and the following is a description of a suitable apparatus for the generation of these currents in which the circuit is never broken.

On reference to Fig. 1, it will be seen that the essentials of the apparatus are a small permanent magnet, two coils of fine wire with soft iron cores, and an armature of soft iron. The spring to which the armature is attached presses the armature against the soft iron cores of the bobbins, maintaining the strength of the magnet when the apparatus is not in use. When by pressure on the lever the armature is quickly removed from the poles of the magnet, a current is induced in the coils of wire, and is communicated by leading wires to

"THE TELEGRAPHIC JOURNAL,

Vol. I, 1873. Pages 4 and 114."

Fig. 3.

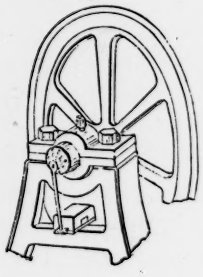


Fig. 1.

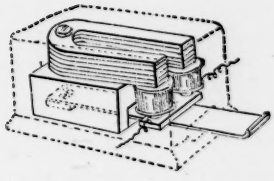


Fig. 11.

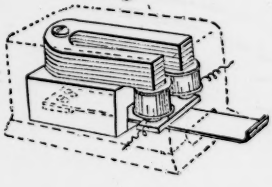


Fig. 2.

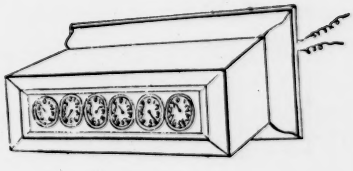
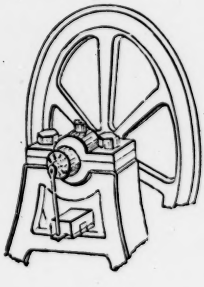


Fig. 12.



the register or indicator, Fig. 2,* where it acts by means of an electro-magnet upon a step-by-step motion precisely similar to the motion imparted to the needle of the receiving instrument of the A B C telegraph. On the return of the armature into contact with the soft iron prolongations of the permanent magnet a current is generated in an opposite direction to the first. The first current caused the hand of the indicator to advance half the distance between two of the figures upon the dial the second current completes the movement, and records one action of the machine to which the apparatus may be attached. Thus in the case where it is desired to record the number of visitors entering a building through a door, the opening of the door causes the needle to advance half a space, and the closing of the door completes the record of the number. In this manner it is easy to ascertain in a distant part of the building not only how many times the door has been opened or closed, but also the duration of the time occupied in the act of opening, and whether the door is standing permanently open or not.

In the *Times* printing office several of these automatic registers are employed to record the number of impressions produced by the various printing machines. The registers are placed in the

(Fig. 3.)

office of the manager, and the generators are attached to the presses in the printing room; by this arrangement the number of impressions per given time can be recorded, and any delay in the working of the machine noted. In the office of the newspaper in question a complete apparatus is attached to each printing machine, affording a more perfect control of the printing room than could be attained by personal supervision. The method of concentreing the lever of the armature to a machine is illustrated in Fig. 3. Among other applications of this instrument, perhaps the most appropriate is to the measurement of the length of cable made and coiled in Messrs. Hooper's works.

Ex'd. E. L. L.
C. F.

*The dimensions of the counter, registering to ten millions, are 10½ inches in length, 3¾ in breadth, and 3¾ in height, but they are made to register to any smaller number.

"EXHIBITS NEWSPAPER ARTICLES."

(Printed record, page 1338.)

A REPORTER'S DIFFICULT TASK.

[Daily Graphic, March 27, 1882.]

AN ILLUSTRATION OF THE RETICENCE PECULIAR TO ELEVANED RAILROAD OFFICIALS.

To get information from the Elevated Railroad officials respecting affairs that constitute legitimate news, and which the public have a right to know about, is a very difficult undertaking. The officials are particularly out of humor at present with newspaper reporters who persist in their inquiries regarding the fatal accidents that are occurring at rapid and almost regular intervals. The sad fate of the little girl, Marie Menzen, who was killed at Sixth avenue and Twenty-third street on Saturday evening, provoking a keen search for particulars on the part of the reporters, has had the effect of sealing the mouths of nearly all the employes of the road, and making it more difficult than usual to get information. To-day a reporter for *The Graphic* called on Colonel Hain, the General Manager of the line, to learn the name and address of the brakeman on whose car the accident occurred, and what steps, if any, the company had taken to place the blame where it belongs. The following colloquy took place:

"Has any investigation been made in the matter of the death of Marie Menzen?"

"No."

"Why not?"

"Haven't had time."

"Is any going to be made?"

"Yes."

"When?"

"As soon as we get time."

"Has any statement been received from the brakeman regarding the matter?" (It is customary, when accidents happen on the road, for employes knowing the facts to report them in writing.)

"No."

"What is the brakeman's name?"

"Don't know."

"How is that?"

"Haven't had time to find out."

"What is his address?"

"Don't know."

"Doesn't the company know the names or addresses of its employes?"

"Yes—that is, the train-master does."

The latter official was found at the station over Battery Park. The following colloquy took place between him and the reporter:

"Will you be kind enough to give me the name and address of the brakeman on whose train Marie Menzen was killed on Saturday evening last?"

"Dr. Shine will give you all the information about that."

"Colonel Hain said ten minutes ago that the names and addresses of all the employes were known to you."

At this juncture the train-master held a long whispered conference with some subordinate official in his office.

"Can you give me the man's name?" asked the reporter when the conference seemed to be over.

"What's the use of publishing so much about the thing?" answered the train-master, evidently much annoyed.

"To learn on whose shoulders should fall the responsibility of the little girl's death."

"The conductor's name is Zabriskie," said the train-master, after a moment's reflection.

"What is the brakeman's name?"

"I don't know."

"Why not?"

"Because he didn't respond to the order asking for names and addresses."

"What order was that?"

"An order issued recently to employes to send in their names and places of residence."

"Was the brakeman a green hand?"

"No."

"How long has he been employed on the road?"

"A long time."

"Then his name is on the pay rolls. What is he called there?"

"Bishop."

The reporter drew a long breath and then began an attack for the first name. His efforts were in vain.

Dr. Shine was next sought. He is the surgeon of the company and is supposed to know the names of the employes.

"Doctor, where does Brakeman Bishop live?"

"Really, I don't know."

"What is his first name?"

"I've forgotten."

"Is it Henry?"

"Yes, it's Henry?"

"Do you know any more about the man than that?"

"Oh, we know the men by their numbers, you know."

"What's his number?"

"Let's see (looking up to the ceiling), well, really, I've forgotten?"

"By the way," said Dr. Shine, "Bishop will be here at half-past twelve o'clock sharp. Come in then and get his story. The company doesn't want to conceal anything."

The reporter was on hand promptly at the time.

"Dr. Shine has gone out," said the girl who answered the door bell. "Will you wait?"

He waited a long time. At twenty minutes to two the Doctor was still absent and Bishop had not come in.

It is understood that the company is having a device made similar to the iron gates in use on the North River ferry boats. These are to be so arranged between the car platforms that an accident by falling between the cars will be impossible. Two hundred of these gates are in course of construction. The company has 600 cars in use every day.

MRS. ANDREWS' ACCIDENTAL DEATH.

[Daily Graphic, Mch. 27, 1882.]

Last Wednesday, in San Francisco, a Mrs. Andrews was instantly killed while walking in a prominent street in company with her husband, upon whose arm she was leaning at the time of the fatal accident. A business sign, twenty-five feet long and eight feet wide, fell from a considerable height, striking the unfortunate lady and crushing her to the ground. Mr. Andrews escaped with a few severe bruises. The accident was the outcome of a violation of the city ordinance, which had become a dead letter. Is not this a warning for New York city authorities?

MASSACHUSETTS FACTORY OPERATIVES.

[Daily Graphic, Mch. 27, 1882.]

This year's report of the Massachusetts Bureau of Statistics of Labor is devoted more largely than usual to subjects of purely local concern. Some of the figures are, however, of general interest. The first subject discussed is the constantly increasing Canadian-French population of New England. In the last report of the Bureau some very sweeping, and as now appears, very unjust remarks were made about these people; they were denounced as dirty, ignorant and immoral, and in order to take all this back nearly 100 pages are required. They may well feel proud of the showing they make here, and native New England must feel a sense of relief at learning that they are rapidly becoming assimilated to the rest of the population.

CONGRESSIONAL REPORT, MARCH 27, 1882.

[Daily Graphic, Mch. 27, 1882.]

WASHINGTON, March 27.—The Chair laid before the Senate a communication from the Secretary of War transmitting a report showing the necessity for action by Congress to facilitate the navigation of the various tributaries of the Mississippi.

Mr. Miller (N. Y.) presented a petition of 3,000 brokers, merchants, bankers and business men of New York in favor of the passage of the Lowell Bankruptcy bill.

Mr. Rollins, of the Committee on Public Buildings, reported favorably the bill for the erection of a public building at Rochester, N. Y.

The bill reported from the Library Committee by Mr. Sherman, to continue the publication of the American archives, was passed.

Mr. Morgan introduced a bill granting the right of way over public lands in Alabama to the St. Louis and Florida Railroad.

Mr. Allison offered a resolution instructing the Committee on Revision of Laws to report what further legislation is necessary to define the meaning of the words "Indian country" in the various statutes. Adopted.

Mr. Hoar introduced a bill to amend the statutes relating to copyright.

A motion by Mr. Vest to recommit the bill admitting Dakota as a State led to a short debate on the financial record of the Territory, but finally prevailed.

The bill granting the right of way for railroad purposes through the lands of the United States Powder Depot, near Dover, N. J., passed.

The bill granting a pension of $5,000 per year to Mrs. Garfield, Mrs. Polk and Mrs. Tyler from September 19, 1881, passed.

HOUSE OF REPRESENTATIVES.

WASHINGTON, March 27.—The House adopted a resolution asking the State Department to furnish a copy of any protocol or other papers signed by Mr. Trescott in relation to Chilian or Peruvian matters; also, to furnish any information in its possession touching the prospects of the release of American citizens in British prisons.

Mr. Flower, of New York, introduced a petition signed by 2,000 New York merchants for the passage of the Lowell Bankruptcy Bill.

The following were among the bills introduced:

To authorize the issue of $25,000,000 in fractional currency.

For the appointment of a commission to examine into the overflow of the Missippi and report what is needed to prevent its recurrence.

To grant lands in Alabama to the St. Louis, Montgomery and Florida Railroad.

To establish a Department of Industry.

To establish experimental farms in various sections of the country.

To pay the Goverment experts in the Guiteau case $25 a day.

To survey the route of the Maryland and Delaware Canal.

To repeal the License tax of Commercial agents in the District of Columbia.

Defining copyright and to enact laws for the punishment of the violators of the rights.

THE EQUITY SCHEME.

[Boston Daily Advertiser, Mch. 22, 1882.]

A special bankruptcy committee of the New York board of trade and transportation has published a broadside comparing the Lowell bill and the equity scheme now pending in Congress. To be sure, the Lowell bill makes a good show, and the equity scheme does not. But the latter is less important as the draft of a bankruptcy act than as an obstacle raised for preventing the consideration of Judge Lowell's excellent bill. The equity scheme is dignified rather too much when compared with the only well-matured bankruptcy proposition before the country. Why the latter is not taken up by Congress, it would be difficult to say, unless it be true that Congress is partial to those measures which either are urged by the importunities of the country; or, like the franking bill, promotes the personal interests of Congress; or, like the apportionment act, help some political interest. If bills be judged upon their merit, the equity scheme is not worth considering.

AMERICAN BELL TELEPHONE COMPANY,-18

A PROTEST AGAINST THE ADMISSION OF DAKOTA.

[Boston Daily Advertiser, Mch. 22, 1882.]

A protest against the admission of Dakota was presented in the senate, yesterday, by Mr. Hale of Maine, who gave notice, that, when the bill for making that Territory a State was considered, he should propose an amendment deferring the admission "until the record of the Territory was cleared." The allegation is, that the county of Yankton as principal, and the legislature of Dakota as accessory, have violated the conditions under which $200,000 was obtained on bonds to secure the construction of a railroad. Mr. Hale said his information was obtained from responsible citizens of Maine who had been sufferers, and Mr. McMillan of Minnesota declared his belief that Dakota could be vindicated as to the charges of "Eastern money-lenders." This complication in the movement to create a State from a portion of that Territory will cause some delay, but it is to be hoped that it will not be found that the alleged "scandalous breach of faith" is grave enough to prevent the bill from becoming a law.

THE NEW WHEAT REGIONS.

[Boston Daily Advertiser, Mch. 22, 1882.]

All estimates of the probable amount of wheat the country will produce this year and the years immediately following must take into account the remarkable development of the new grain fields of the far Northwest. Eastern Dakota and the adjacent portions of Manitoba are fast becoming an immense granary. Many thousands of new farms will be opened in that section this spring, and the settlers of last year will, almost without exception, sow an increased area of ground. In fact the rule among the farmers there is to work as many acres as they can command the labor of men and animals to plow in season for seeding. The profits on wheat-growing have proved to be so large and so trustworthy that the settlers are eager to make as large crops as possible. The experience of those who have been a few years in Dakota shows that an average net profit of $10 for every acre sown can be depended on with almost absolute certainty.

POLICY SHOPS.

[Boston Daily Advertiser, Mch. 22, 1882.]

The New York courts experience much difficulty in attempting to suppress "policy shops," a form of lottery which Judge Cowing, in addressing the jury, declared gave not even the shadow of a chance to those who patronize it. Three cases in succession have resulted in a disagreement of the jury, and the judge confessed that these shops would become soon an unbearable evil, if complaints ended in failure to secure a verdict. The statute and the jurymen evidently both need amending.

PERSONAL.

[Boston Daily Advertiser, Mch. 22, 1882.]

General Grant and his wife arrived at the White House to-night on their long-expected visit to the President. John Russell Young, the newly appointed minister to China, came with them.

Owing to the President's numerous engagements he finds it impossible to give a reception to the Massachusetts excursionists now in the city.

GENERAL PRESS DESPATCHES.

[Boston Daily Advertiser, March 22, 1882.]

W. E. Dickinson of Chicago waited upon the President to-day and presented the monster petition from citizens of Illinois for executive clemency in the case of Sergeant Mason. He was accompanied by Representatives Aldrich and Farwell, and had a pleasant interview. The President said he would consider the case.

RAILROAD COAL EXCHANGE.

[Boston Daily Advertiser, Mch. 22, 1882.]

The railroad coal exchange of Pittsburg, Pa., has ordered a reduction of one-half cent per bushel in mining scales. This action will affect over 3000 miners.

AMERICAN BELL TELEPHONE COMPANY,-18

SENATOR TELLER.

[Boston Daily Advertiser, Mch. 22, 1882.]

(FROM OUR WASHINGTON CORRESPONDENT.)

WASHINGTON, March 21, 1882.—It appears to be as certain as anything of the kind can be before it is accomplished, that Senator Henry M. Teller of Colorado is to be appointed Secretary of the Interior. When it was first intimated among the knowing ones that a Western man who had not been mentioned in connection with a Cabinet position was to be given that department there was at once much curiosity in the matter. While the senator does not affirm or deny the truth of the report, the matter has been pretty thoroughly canvassed during the day, and the conclusion is that there is no doubt about it. Mr. Teller is now serving his second term and is near its end. If he goes into the Cabinet he may not seek a re-election. On the other hand, he may think his chances of re-election improved. He is a man of fair, but not distinguished ability, very positive in his opinions and an industrious business man. His views on the Indian question are pretty well known. While he appears disposed to be just he is not favorable to the propositions that have lately received attention and appear to be growing in favor. Last winter he strenuously opposed the measure for giving the Indians lands in severalty.

JEANNETTE SEARCH.

[Boston Daily Advertiser, Mch. 22, 1882.]

Despatch to take charge of Lena received. I meet Danenhower here. Will report after further conversation. His five men are essential to conduct search in the Lena. No other seamen can be obtained. They are in splendid condition and very anxious to return with me. Am earnestly requested to take them. Answer here direct.

CONGRESSIONAL PROCEEDINGS, MARCH 21, 1882.

[Boston Daily Advertiser, Mch. 22, 1882.]

WASHINGTON, March 21, 1882.—In the senate today, pending a motion to take up a bill just reported from the finance committee to

amend a section of the Revised Statutes, Mr. Hoar very pertinently called attention to the fact that the title conveyed no intimation to the subject. It seemed to him that there ought to be a rule of the senate prohibiting the reporting of bills with titles which do not indicate their purport so that the country, through the press, may be informed in every instance as to the status of legislation. The bill was not taken up.

WASHINGTON, March 21, 1882.—The house today, by a strong vote, assigned Tuesday, the 11th of April for consideration of the Geneva-award bill. It may be expected that the opponents of the bill will do all in their power to prevent its consideration then or any time.

THE RECALL OF MR. LOWELL.

[New York Tribune, Mch. 30, 1882.]

We take it that he will be recalled. Or, if President Arthur does not immediately recall him upon learning the action of our Board of Aldermen, that Mr. Lowell himself will have the grace to recognize the fact that he has offended the representative body of the "greatest Irish city on the globe," and, having outlived his usefulness as Minister to England, will resign.

LANDLORDS AND TENANTS.

[New York Tribune, March 30, 1882.]

The annual conflict between landlords and tenants is now almost at its height, and careful inquiries by TRIBUNE reporters in all parts of the city show that the tenants are generally getting the worst of it. But certainly those in the choicer parts of the city could expect nothing else. Year by year every foot of ground on this narrow and crowded island becomes more precious. Prices for a good many things have been going up of late, but most of all for building materials and the labor employed in the building trades. So it is not surprising that rents go up. The city is growing at a magnificent rate in wealth, in population and prosperity. The advance in the last two years has been marvellous. New buildings are under way

on all sides, but not nearly enough of them to supply the demand. The number of really good sites not already occupied is rapidly diminishing. Every man of means wishes a house in or near one of the fashionable avenues, and tens of thousands of men who use offices must have them near Wall-st. or the City Hall. With the best business quarter and the best residence quarter limited as they are by the shape and character of the city, is i to be wondered at that rents rise with every year of prosperity?

SOUTHERN EDUCATION.

[N. Y. Tribune, Mch. 30, 1882.]

Fifteen millions a year for ten years is the modest sum demanded now of Congress by Southern members for education in their section.

PERSONAL.

[New York Tribune, March 30, 1882.]

Postmaster-General Howe has a way of putting his feet up on the centre-table during an interview in such a manner as to throw a home-like air upon the whole scene.

Benjamin F. Butler, of Massachusetts, was in this city on Tuesday and spent the day in receiving callers. Mr. Butler is now in the budding state, and is liable to blossom out at any moment as a Gubernatorial candidate.

It is expected that Judge Blatchford will leave this city on Friday to take his place on the Supreme Court bench. He will sit in Chambers to-day to sign orders. He has disposed of the cases in the Circuit Court demanding his attention.

THE GROWING UNEASINESS.

[New York Tribune, March 30, 1881.]

From The Syracuse Journal (Rep.)

Our Washington dispatches continue to show a very gradual but steady tide of appointments in the interest of a single party faction. It is essentially the repetition of past history under like circumstan-

ces. It seems to be inevitable that a so-called "accidental" President should sacrifice himself, but it does not seem to have occurred to any one of them thus far in our history to make loyalty to his party the ground of this self-sacrifice. During the first six months of his administration the course of President Arthur has been discreet and has evoked criticism only from partisan extremists on either hand, but the tendency of recent movements on his part is far from reassuring. Our political opponents have furnished us with many striking object lessons on the results of factious favoritism. Failure to evince a teachable spirit, and to avoid the rock upon which the Democratic party has split, will as surely lead to Republican defeat. To avert this, it were better that President Arthur should abandon every personal ambition that depends upon the favor of a faction, for in unity lies his only hope of success, as well as that of the party.

UNDERGROUND TELEPHONE WIRES.

SUCCESSFUL TEST OF THE ELECTRIC COMPANY'S LINE IN PHILADELPHIA.

[New York Sun, Oct. 30, 1881.]

PHILADELPHIA, Oct. 29.—A successful test of the workings of the National Underground Electric Company's new line in Market street was made this afternoon in the presence of a large number of Philadelphia, Chicago, and New York capitalists. Three telegraphic and two telephonic instruments were in conuection with similar instruments in distant buildings, and an electric lamp was in connection with a dynamo-electric machine across the street. The telegraphic instruments and one telephonic instrument were connected with solenoid wires, and the other telephone with the ordinary ground current wire as used in the present system of air lines.

In the experiments to-day a cable, doubled so as to represent a straight length of two and one-half miles, was used. The telegraphic instruments were first tested and found to work without a hitch. The experiments with the telephones were more interesting. A solenoid wire used as an ordinary wire, with the ends grounded, connected one of the telephones. When the receiver was held to the ear various sounds could be heard in addition to the voice of the person at the other end of the line. These were sounds gathered in by the induction of the grounded wire. The click of telegraphic instruments could be plainly heard, while the buzzing

AMERICAN BELL TELEPHONE COMPANY,-18

and whirring sounds made the operation of the wire anything but satisfactory. The telegraphic clicking sounds came by induction from the Western Union and other poles forty feet away, to the wire buried four feet under the stones in the street. The messages could hardly be read, owing to the back strokes of the instruments.

The other telephone connected with a solenoid wire, used in its proper way with the metallic circuit, was then tested. When the receiver was placed to the ear, not a sound could be heard except the voice, clear and distinct, of the person talking into the transmitter. The slightest whisper was distinctly audible, and conversation could be carried on with the greatest ease.

MR. VANDERBILT'S REPORTED ILLNESS.

[New York Sun, Oct. 30, 1881.]

It was rumored about the hotels last evening that Mr. William H. Vanderbilt had been taken ill very suddenly. Still later rumor had it that he had suffered a stroke of paralysis. An intimate friend of Mr. Vanderbilt, who was found at midnight, said that Mr. Vanderbilt went to his physician's office yesterday forenoon to consult him about a cold that he had taken, and that Mr. Vanderbilt, when asked why he did not have his physician come to him, answered that he was quite well enough to go out. This gentleman was to have called at Mr. Vanderbilt's house last evening, but was prevented by the rain. He said that if Mr. Vanderbilt had been stricken with serious illness he would have been likely to hear of it. He had heard of the alarming rumors, but gave himself no concern about them.

"EXHIBIT SCOTT ARTICLE."

[*Respondents' printed record, page* 1105.]

FIXING SOUNDS.

Some months ago, M. Scott, well known among the savans of Paris, exhibited experiments of a very interesting character, in the art of fixing sounds. The same species of natural means so successfully employed in photography with reference to form, namely, the aërial undulations of which sounds consist, are, by the construction of the *phonograph*, made ingeniously to subserve the intricate purposes in view. The representation of the various curves and vibrations performed by an instrument of

highly susceptible mobility, while acted upon by these atmospheric movements, has been perfectly accomplished; and although a serious difficulty seems to obstruct a re-translation of this somewhat indefinite language into the regular and fixed signs for the verbal sounds which produced it, M. Scott is sufficiently sanguine about the result to give cause for alarm in the minds of shorthand writers, whose occupation would be more detrimentally affected by this wonderful apparatus for reporting, than even artists have been by the sister invention of photography.—*Exchange.*

[It is a little singular that two different persons on opposite sides of the globe should be employed on this project. Dr. Everitt, of New Orleans, has an engraving of his Acoustic Telegraph on the first page of this number; it is essentially the same thing as that described above. M. Scott is behind the times.—EDS.]

SCIENTIFIC AMERICAN ARTICLE,-SEPT. 9, 1876. p. 163.

[*Respondents' printed record, page* 1271.]

THE HUMAN VOICE TRANSMITTED BY TELEGRAPH.

Several weeks ago we gave a sketch and description of the thread telegraph, consisting of two small tin or wooden cylinders, each having a membrane stretched over one end, the two membranes connected by a stout thread. Two persons may readily communicate the sounds of the voice by means of these instruments over a thread fifty or a hundred feet in length. The person sending speaks within one of the cylinders, which causes the membrane to vibrate; the vibration passes along the stretched thread to the membrane of the other cylinder; which being held to the ear of the person receiving the message, the vibration is duly heard, or, in other words, the voice of the sender is made audible.

Professor Graham Bell, by a device somewhat analagous, has succeeded in transmitting the tones of the human voice by telegraph. Instead of the thread he connects the membranes of the two cylinders or drums with the armatures of the electro-magnets, one drum being placed on each end of the telegraph wire. In fact, he not long ago demonstrated the possibility of conveying vocal sounds by means of the ordinary telegraph

wires and special appliances for transmitting and receiving the sounds. The apparatus used by Professor Bell is thus described: Two single-pole electro-magnets, each having a resistance of 10 ohms, were arranged in circuit with a battery of five carbon elements—the total resistance being about 25 ohms. A drum head of goldbeater's skin, about 2¾ inches in diameter, was placed in front of each electro-magnet, and a circular piece of clock spring was glued to the middle of the membrane of each drum-head. One of these telephones was placed in the experimental room and the other in the basement of an adjoining house. Upon singing into the telephone the sounds of the voice were reproduced by the instrument in the distant room; and if two persons sang simultaneously, the two notes were audible at the other telephone.

At the time of the lecture an experiment was made to show the transmission of articulate speech, an assistant going into the adjoining building where one of the telephones was placed. Several familiar questions were, it is said, understood after a few repetitions. The vowel sounds alone are those faithfully reproduced, dipthongal sounds and rotund vowels are readily distinguished, but consonants are generally unrecognizable. Now and then, however, a sentence comes out with almost startling distinctness, the consonants as well as the vowels being clearly audible. Professor Bell stated that telephonic effects can be produced with three varieties of currents—the intermittent, the pulsatory, and the undulatory. The first are characterized by the alternate presence and absence of electricity in the circuit; the pulsatory current by sudden changes in intensity, while the undulatory currents are obtained by gradual changes analagous to the changes of density of air produced by vibration of a pendulum.

The most recent trial of Professor Bell's instrument was at his residence, Brantford, Canada, August 11. The Toronto *Globe* states that instruments were placed, one in the porch of the residence and the other in an outhouse on the grounds, and communication between these made by ten miles of wire. Musical notes, the human voice, and songs spoken and sung before one instrument were plainly audible by placing the instrument to the ear at the other. By this invention, too, any number of messages can be conveyed over one wire in either direction, provided they have a different pitch; the tones of the voice can pass over the electric wire, enabling the hearer at any distance to hear distinctly what is said, and to distinguish the voice of the speaker. On August 10 the

professor had communication made with his instrument on the common telegraph wire between Brantford and Mount Pleasant (five miles) and was spoken with, while in Mount Pleasant, by Professor D. C. Bell and Mr. Griffin, from the *Dominion* office in Brantford. On the evening of August 12, the professor tried a new experiment, having had an instrument made so that three persons could sing different tunes, or different parts of the same tune, into the instrument at the same time. The trial was perfectly successful, the different voices coming distinctly over the wire at the same time, so that they could be separately distinguished by the listener. The practical exemplification of the lately discovered system of telephony made by the professor afforded much pleasure and information to those present.

EXHIBIT FIRST GALVANOMETER DIAGRAM.

[*Respondents' printed record, page* 975.]

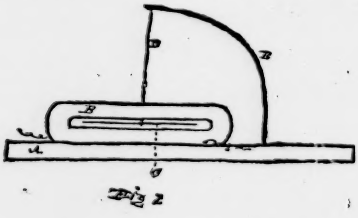


Fig 2

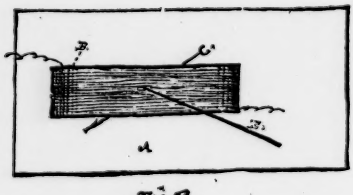
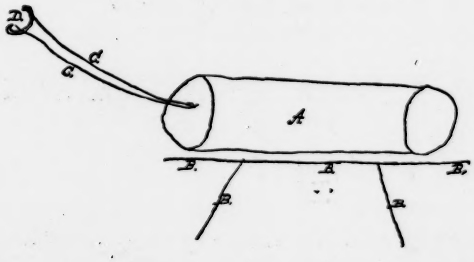


Fig 2.

EXHIBIT LORY.

[*Respondents' printed record, page* 236.]



[*The above is a reduced photo-engraving of the sketch made by respondents' witness, W. M. Lory, May* 7, 1881, *in answer to direct question* 13. *The original sketch was made in pencil by the witness, and was inked in by Mr. E. H. Rydall, at the time, by consent of counsel. It is reduced to about one third of the size of the original.*

FRED. M. OTT,
Examiner.]

"EXHIBIT DRAPER LETTER."

[*Printed record, page* 1172.]

Office of **THOMAS DRAPER & CO.,**

Manufacturers of Phosphates and Dealers in all kinds of Fertilizing Material, Lime and Grain,

NO. 317 S STATE STREET,

Dover, Del., Jan. 30th, 1882.

Mr. Danl. Draughbaugh,

Dear Sir:

I was interegated to day by an Atorney from N. York or Boston in refferance to what I knew about your having invented a telephone or talking machine as you called it, when you first showed it to me. When he first began to talk I thought he was a man you had sent down here, but I soon found my talk did not suit him, and when I tried to find out where he was from and what he wanted, he told me he was a Lawyer from the oposite side from you, and that there was a big lawsuit pending over the telephone pattent between you and the Bell company. I told him I did want to be called up as a witness, but I thought you ought to have the benefit of your invention. He asked me when I first saw yours, I told him I

had never seen it but once, and I thought that was in 73 or 74, and that you showed me what you could do with it, and that you talked to me with it in an adjoining room and that you said your only trouble was money to carry out your plan and that you wanted me to take holt with you, or let you have some money to carry out your plans. If you reccollect George W. Kissinger was with me at your place. He and I had a long talk about it afterwards. Now I dont want to be taken from home, as I am getting old, but I dont like to see a man cheated out of his just rights Are you going on with your suit

Ever Truly, Thomas Draper.

[*The exhibit "Draper Envelope," inclosing the foregoing letter, is addressed "Daniel Draughbaugh, Esq., Eberly's Mills, Cumberland Co., Penna."*

The post-mark is "Dover, Del., Jan. 30."

It bears upon its upper left-hand corner the printed words

"Thomas Draper & Co.,
Manufacturers of Phosphates,
Dover, Delaware,"

and across the end of the envelope is a printed request to return if not delivered in ten days.

FRED. M. OTT, *Examiner.*]

EXHIBIT KISSINGER-DRAPER LETTER, MAY 30, 1875.

[*Respondents' printed record—Sur-rejoinder—page* 169.]

May 30 75

Marysville

Mr Draper Dear Sir i
recevd you Letter a bout
the pipse now they say non
will do but iorn pipe to
go up dil now i can get
som god old pipe here now
i want you to com up
soon we got the prch
tres al triud and lok nice
wat sha you som farmin
this year rite sone no
more yours Truly

Geo Rumsey

PENNSYLVANIA COMPANY,

Operating the Pittsburgh, Fort Wayne and Chicago Railway.

FREIGHT RECEIVED AT WHEELER STATION, *September*, 1874.

DATE OF RECEIPT OF MANIFESTS	Date of manifests.	Nos. of manifests.	CAR. Initial.	CAR. Number.	Stations from.	Consignees.	Freight.	Charges.	Prepaid.	Unpaid.	When paid.	RECEIPTS Book.	RECEIPTS Page.	Remarks.
1874. Sept. 25, .	" "	4,864	P. F. W.	655	Pittsburgh,	Jos. Ditlow,	$0 94	$0 65	. . .	$1 59				

[*Copy of entry from page* 36 *of Freight Receipt Book of Pennsylvania Railroad Company, for Station at Wheeler, Indiana, put in evidence as "Exhibit Pittsburgh, Fort Wayne and Chicago Railway Freight Receipt Book." See page* 479, *Respdt's printed sur-rebutting testimony.* *FRED. M. OTT, Examiner.*]

PENNSYLVANIA COMPANY,

Operating the Pittsburgh, Fort Wayne and Chicago Railway.

FREIGHT RECEIVED AT WHEELER STATION, *March*, 1877.

DATE OF RECEIPT OF MANIFESTS	Date of manifests.	Nos. of manifests.	CAR. Initial.	CAR. Number.	Stations from.	Consignees.	Freight.		Charges.		Prepaid.		Unpaid.		When paid.	RECEIPTS Book.	RECEIPTS Page.	Remarks.
1877. March 30, .	Mar. 26,	3,260	P. F. W.	4,114	Pitts. trans.	Jos. Ditlow,	$1	60	$0	86		.	$2	46	Mar. 30.			

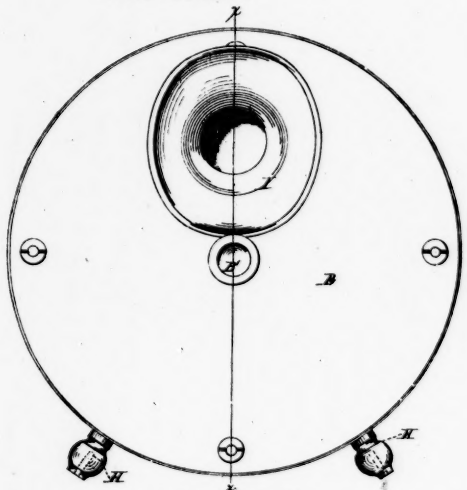
[*Copy of entry from page 90 of Freight Receipt Book of Pennsylvania Railroad Company for Station at Wheeler, Indiana, put in evidence as "Exhibit Pittsburgh, Fort Wayne and Chicago Railway Freight Receipt Book." See page 479, Respdt's printed sur-rebutting testimony.* *FRED. M. OTT, Examiner.*]

AMERICAN BELL TELEPHONE COMPANY, -18

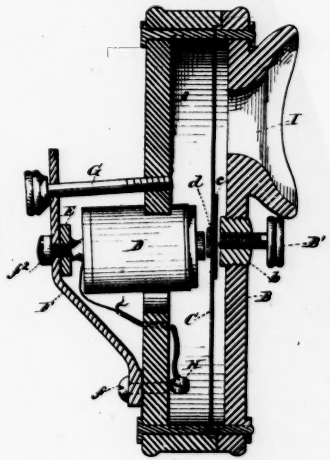
AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked A. full size
Harrisburg, Pa. May 2nd 1881.
W.H.H. Knight 2nd

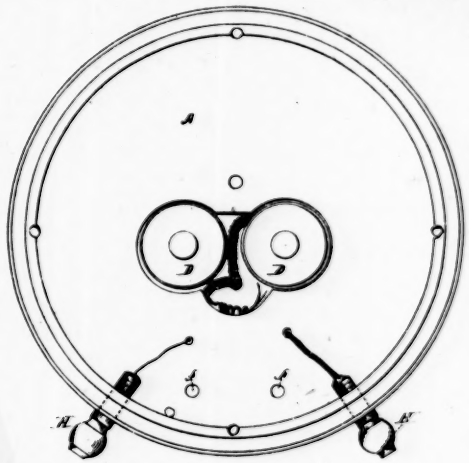
Front elevation.



Longitudinal section on line x,x. of front elevation



Front view. cap removed.

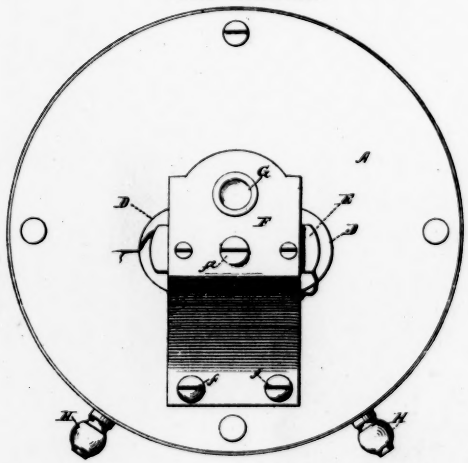


References.

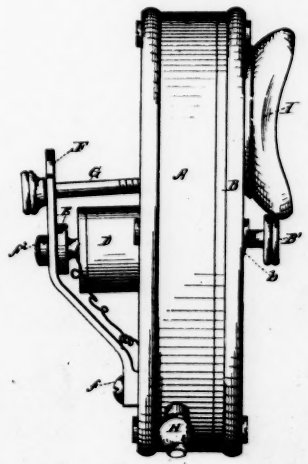
A. Case. of black walnut.
B. Cover or cap to same.
B'. Adjusting screw for diaphragm. brass
b. Screw block in cap through which B' passes
C. Diaphragm. of thin black walnut.
c. Rubber cemented to C.
D. Electro-magnets.
d. Armature on diaphragm.
E. Plate connecting magnets.
F. Bracket to support magnets.
f. Screws securing same to case.
f'. Screw holding plate E to bracket.
G. Adjusting screw for bracket.
H. Screw cups.
I. Mouth or Bar piece.
i. Conductors, or wires.

W.H.H. Knight

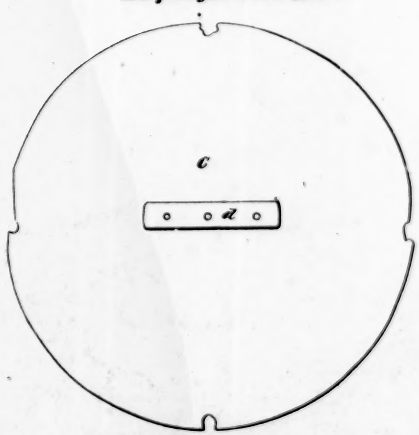
Rear elevation



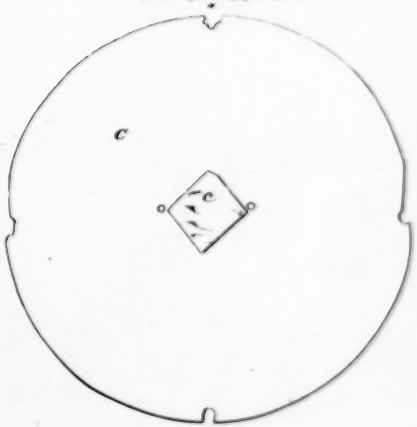
Side elevation



Diaphragm lower side



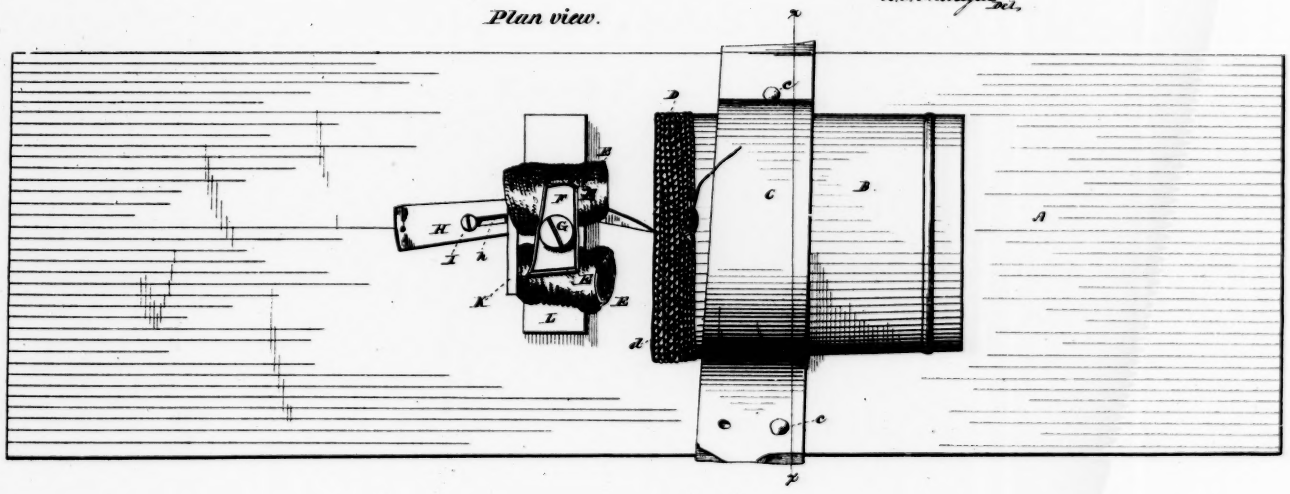
Diaphragm upper side



AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked B. full size
Harrisburg Pa.
June 8th. 1881
W.H.H. Knight Del.

Plan view.

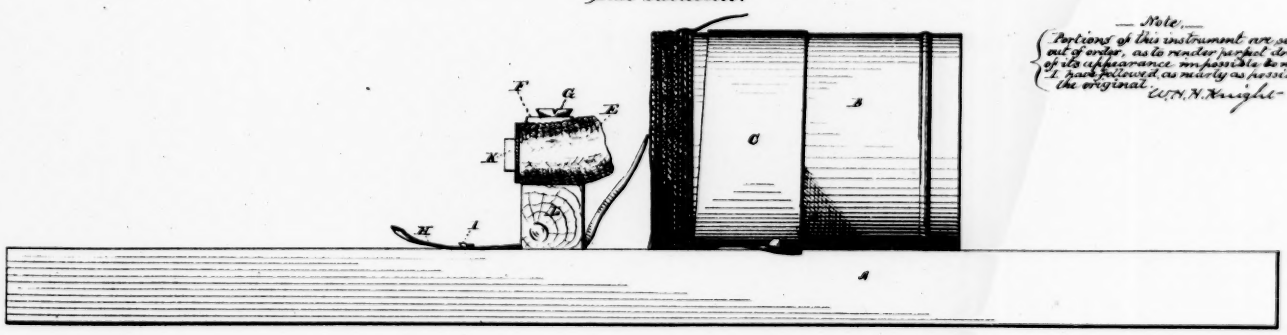


References.

A. Base board, of pine.
B. Tin box. evident by a mustard box.
C. Strap of tin.
c. Nails or tacks.
D. Twine wrapped about box, to hold membrane composing diaphragm in place.
d. Projecting edge of membrane.
E. Electro magnets.
F. Retaining plate of copper.
G. Screw securing same to base board.
H. Tension plate, to tighten diaphragm.
h. slot in same.
I. Regulating screw in slot h.
K. Plate to which magnets are attached.
M. Plaster of paris lining to box from ½ to ⅝ of an inch in thickness. the lining is broken away at different points.
L. Wooden block upon which magnets rest.

W.H.H. Knight

Side elevation.

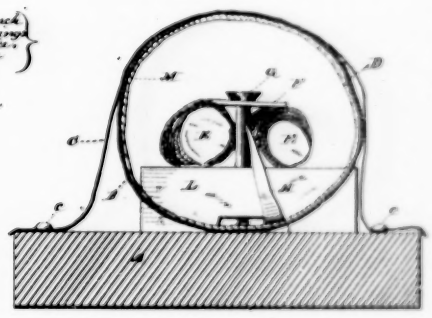


Note.

Portions of this instrument are so much out of order, as to render perfect drawings of its appearance impossible to make. I have followed as nearly as possible the original.

W.H.H. Knight

Section on line x x.



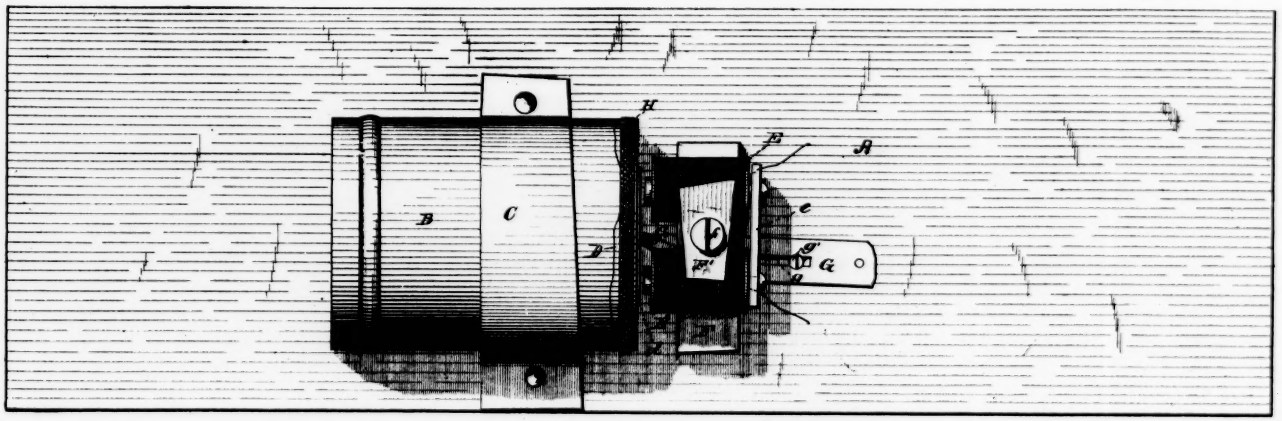
AMERICAN BELL TELEPHONE COMPANY,- 19

Reproduction of instrument marked B. full size.

Harrisburg Pa. July 20th. 1881.

W. H. H. Knight Del

Plan view.

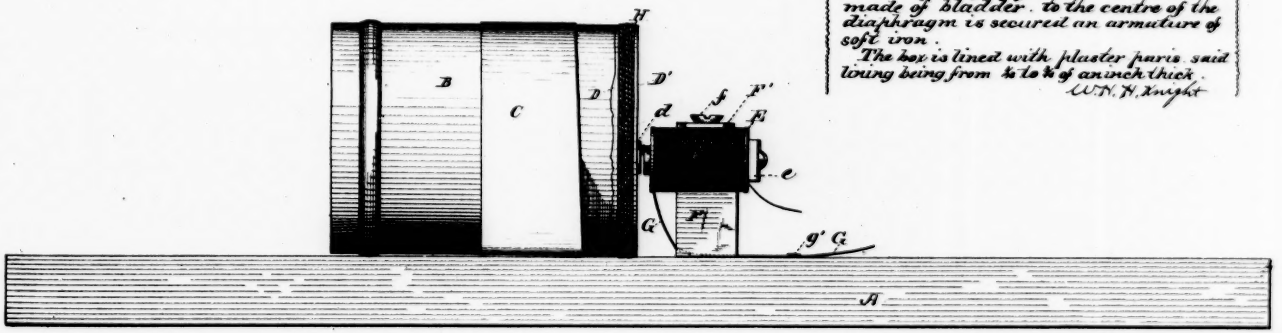


References

A. Base board.
B. Box.
C. Strap holding B to A
D. Edge of Diaphragm.
D'. Diaphragm.
d. Armature.
E. Electro-magnet.
e. Bar holding magnets E. together.
F. Block to support E.
F'. Plate to hold magnets E. to block F.
f. Screw holding E. F. and F'' to A
G. Tension spring for diaphragm.
g. Slot in G.
g'. Screw holding G. in place.
H. Cord wrapped about box to hold diaphragm in place.

W. H. H. Knight

Side elevation.

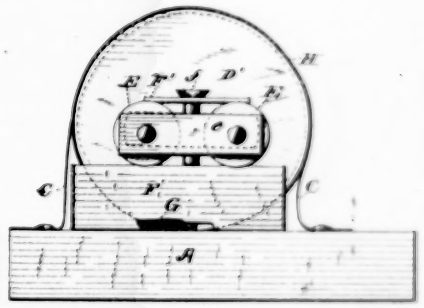


— Note —

The diaphragm of this instrument is made of bladder. to the centre of the diaphragm is secured an armature of soft iron.

The box is lined with plaster paris said lining being from ⅛ to ¼ of an inch thick.

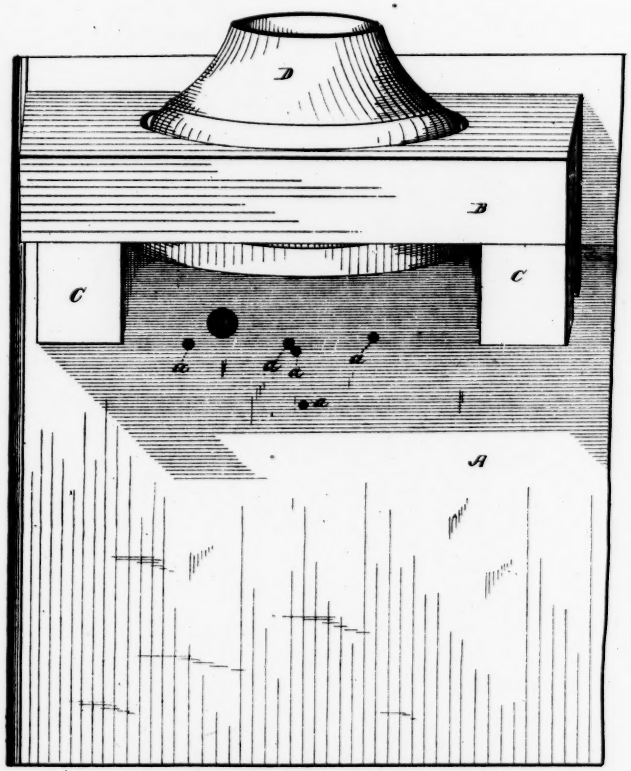
W. H. H. Knight

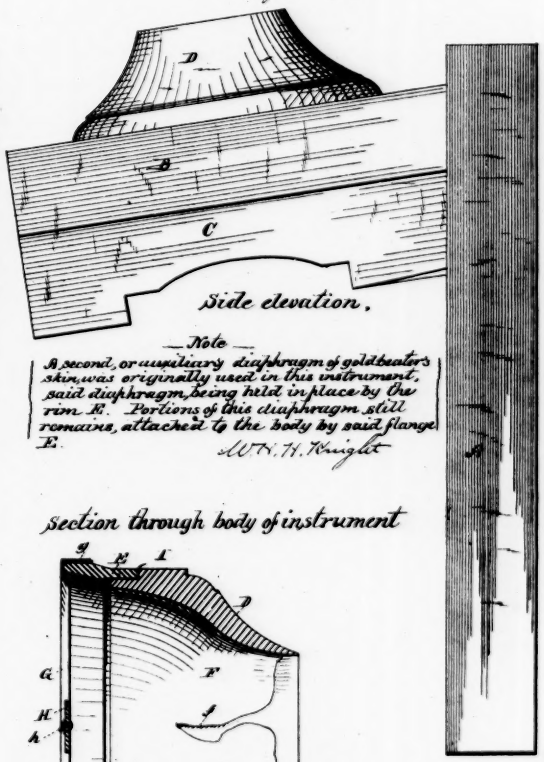


AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked C. full size
Harrisburg June 23d. 1881.
W.H.H. Knight del

Top elevation,

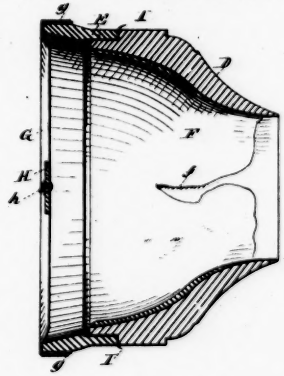




Side elevation.

Note
A second, or auxiliary diaphragm of gold beater's skin, was originally used in this instrument, said diaphragm being held in place by the rim E. Portions of this diaphragm still remains, attached to the body by said flange E.
W.H.H. Knight

Section through body of instrument

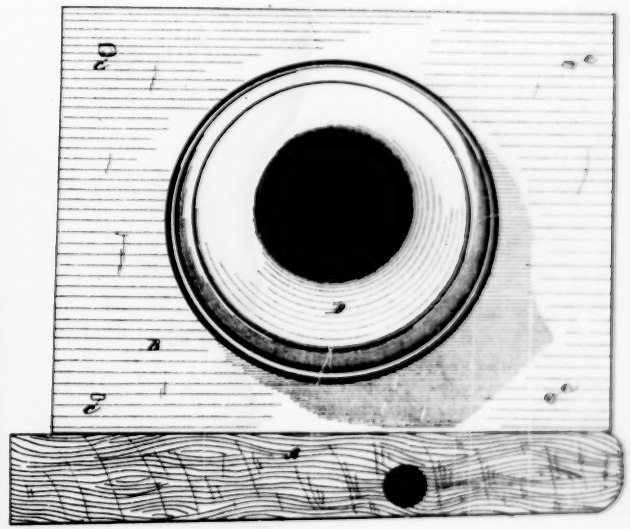


References,

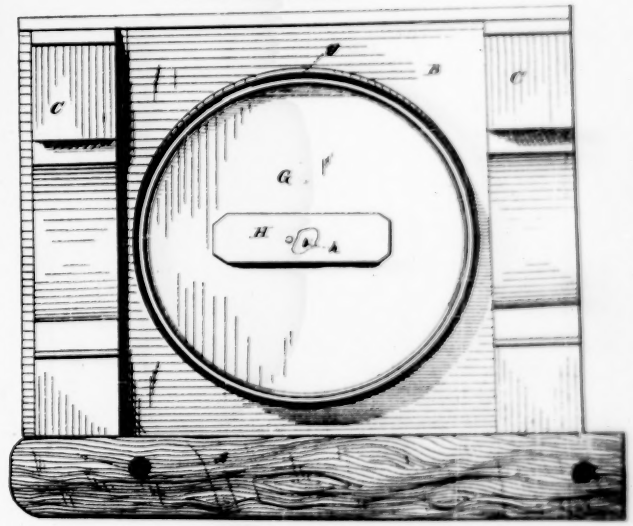
A. Base of instrument. a. Screw holes in base A.
B. Upright board to hold instrument
C. Braces to support B. c. Nails holding B and C. together
D. Body of instrument. E. Rim at rear of D.
F. Plaster paris lining to D. f. Breaks in F.
G. Diaphragm tin. g. Band surrounding flange of G
H. Armature attached to G. h. Wire attached to H.
I. Auxiliary diaphragm of gold beaters skin

W.H.H. Knight.

Front elevation



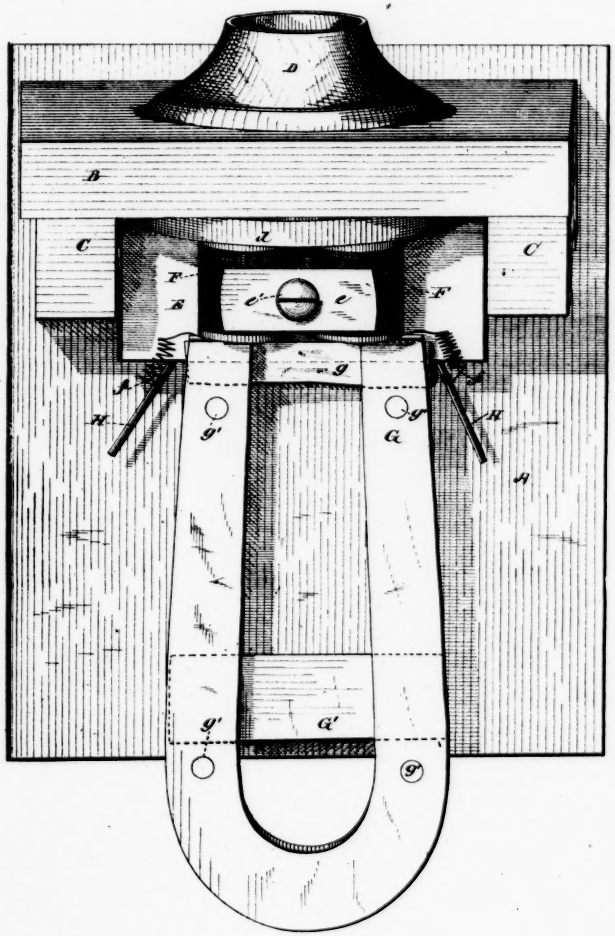
Rear elevation



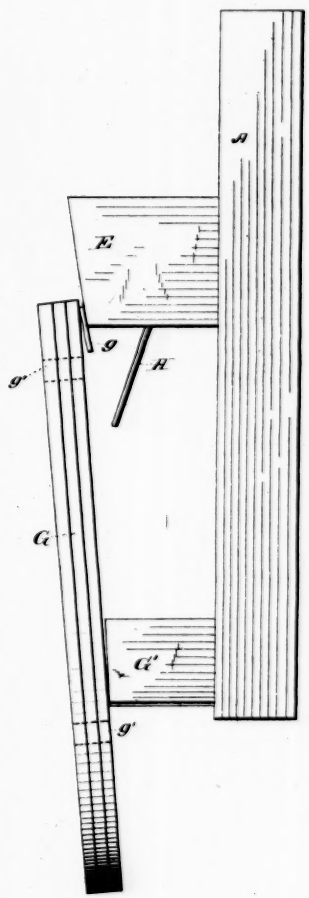
AMERICAN BELL TELEPHONE COMPANY,- 19

Reproduced instrument marked full size
Harrisburg Pennsylvania July 13th 1881
W.H.H. Knight

Reproduction of instrument C.
Plan view



Side elevation of base board, magnet, and its supporting blocks.



References.

A. Base board.
B. Upright to hold body of instrument.
C. Supports of B.
D. Body of instrument.
d. Band on rim of D. to hold diaphragm in place.
E. Block to support electro magnets.
e. Plate to hold electro magnets in place, brass
e' Screw to secure e. and E. to A.
F. Electro-magnets.
f. Wires to F.
G. Permanent magnet.
G'. Block to support G.
g. Paper to raise end of G.
g'. Rivets in G.
H. Studs in block E. to receive wire.
W.H.H. Knight.

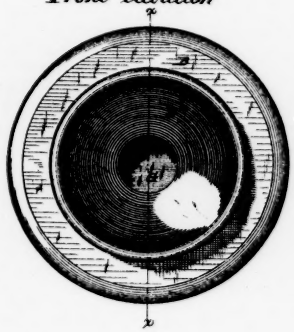
Note

This instrument is similar in all respects to original instrument marked C having armature attached to diaphragm therefore I have thought two views sufficient in this case

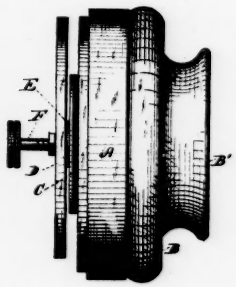
W.H.H. Knight.

Instrument marked "D."
Harrisburg, Pa.
June, 12th, 1881.
W.H.H. Knight Del.

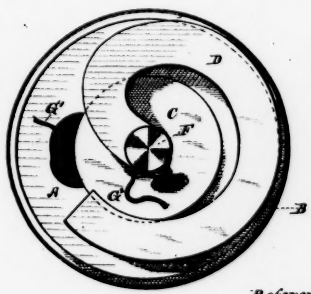
Front elevation



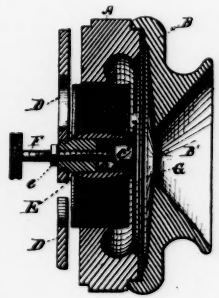
Side elevation



Rear elevation,



Section on line x x.



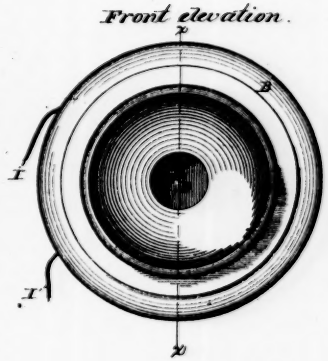
References

A. Body of instrument.
B. Cap " " " .
B'. Mouth piece.
C. Electro magnet.
c. Hollow core of C. iron.
c'. adjustable plug in c.
D. Permanent magnet.
E. Screw plug to support D.
e. Jam nut or adjusting screw.
F. Adjusting screw for c'
G. Diaphragm tin.
G'. Conductors or wires.

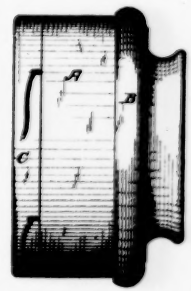
W.H.H. Knight

Instrument marked E. full size
Harrisburg Pa. June 13th 1881.
W.H.H. Knight

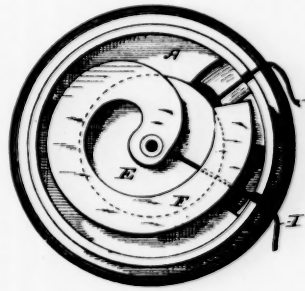
Front elevation.



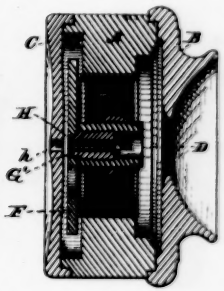
Side elevation



Rear elevation. cap off.



Section on line x x.



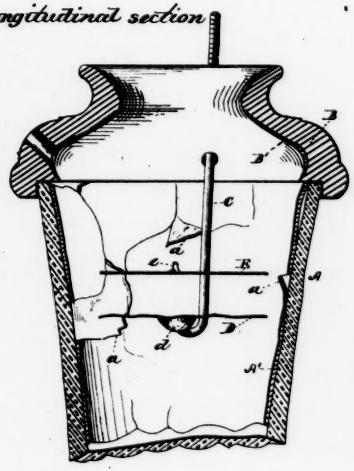
References.

A. Body of instrument.
B. Cap " " "
C. Rear cap " "
D. Diaphragm.
E. Electro magnet
G. Hollow core of E. iron.
F. Permanent magnet.
G'. Screw plug to support F.
H. Female screw in G'.
h. Aperture in C.
I. Wires

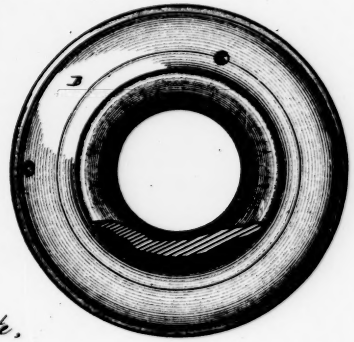
W. H. H. Knight

Instrument marked F. full size
Harrisburg Pa June 15th 1881
W.N.H. Knight del

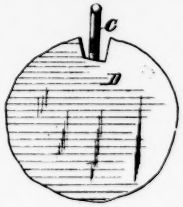
Longitudinal section



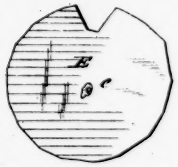
Cap top view.



Lower plate.



Upper plate.



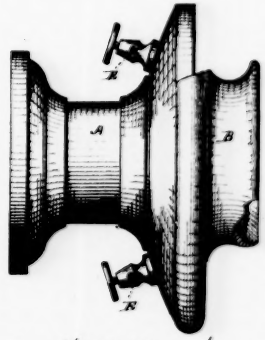
— References —

A. Glass tumbler bottom broken off.
B. Wooden cap.
B'. Plaster-paris lining to cap.
A'. " " " " " " " " tumbler.
a. Breaks in lining A'.
C. Adjusting rod for lower plate.
D. Lower plate.
d Solder joint.
E. Upper plate.
c. Wire to plate E.

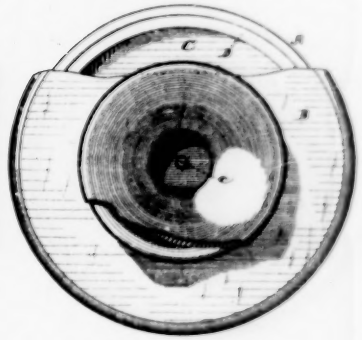
W.N.H. Knight.

Instrument marked G. full size.
Harrisburg Pa. June 16th 1881
W.N.H. Knight del

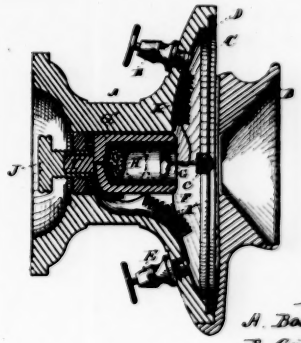
Side elevation.



Top plan view

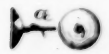


Longitudinal section.



Fragment of cap.

Contact tips.



— References —

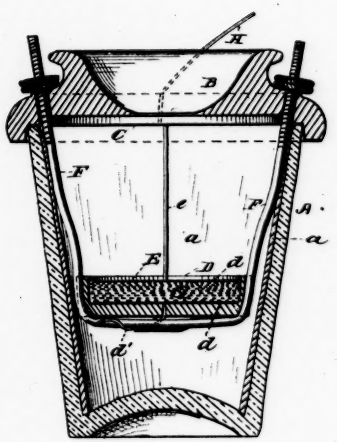
A. Body of instrument.
B. Cap " " "
C. Diaphragm.
c. Contact cup on diaphragm.
D. Paper ring
E. Screw cups.
F. Carbon holder, wood.
G G'. Contact tips in holder
H. Carbon ball.
I. Rubber spring in adjusting screw.
J. Adjusting screw.
K. Conductors

W.N.H. Knight

AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked F. Reproduced
Harrisburg August 8th. 1881.
W.H.H. Knight

"Full size"



References.

A. Glass tumbler.
a. Plaster paris lining to same.
B. Wooden mouth piece.
C. Diaphragm. tin.
D. Carbon holding cup. wood.
d. Metallic plate at bottom of D.
d'. Wire from plate d. to adjusting posts.
E. Upper metallic plate in cup D.
e. Bar from plate E. to diaphragm.
F. Adjusting posts.
G. Carbon in cup D.
H. Conductor to diaphragm.

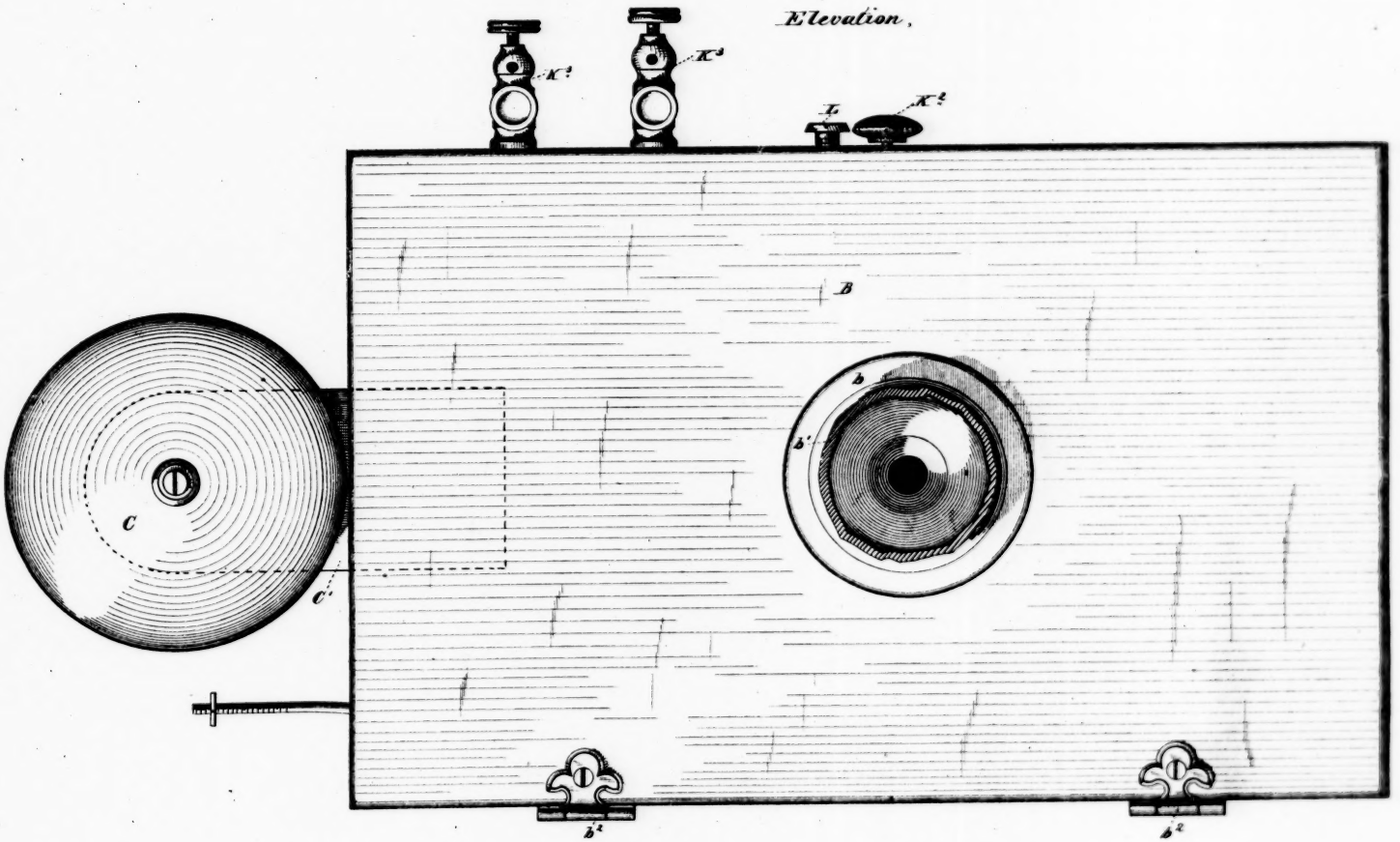
W.H.H. Knight

Note
The conductor H. is attached to the edge of the diaphragm. the opposite edge of the diaphragm is notched to allow passage for a conducting wire, (not on instrument) through the cup, to the wire d'.
W.H.H. Knight

AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked H. full size Sheet 1.
Harrisburg. Pa. June 20th 1881.
W.H.H. Knight Del

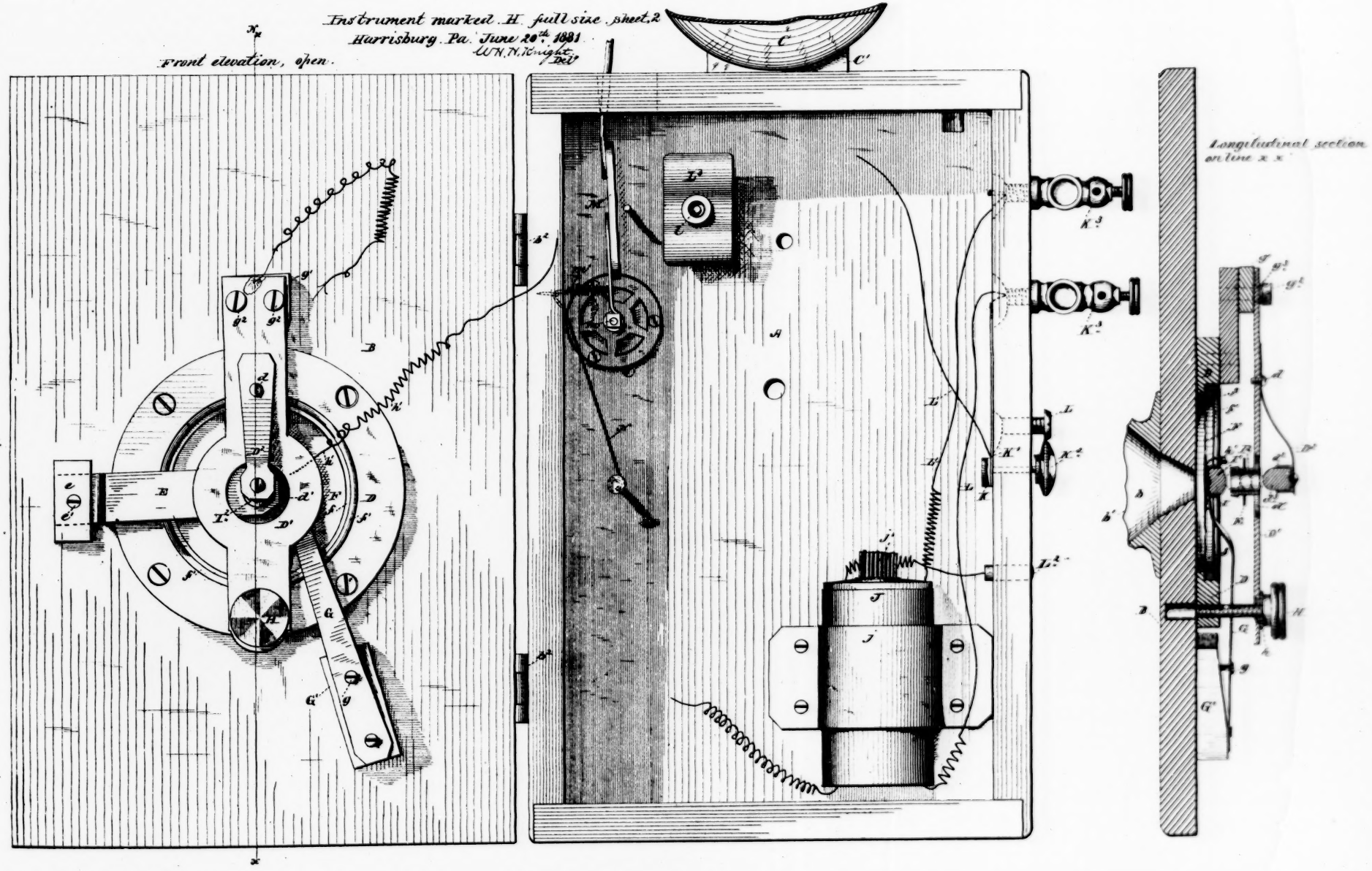
Elevation.



AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked H. full size. Sheet. 2
Harrisburg. Pa. June 20th. 1881
W.N. Knight. Del.

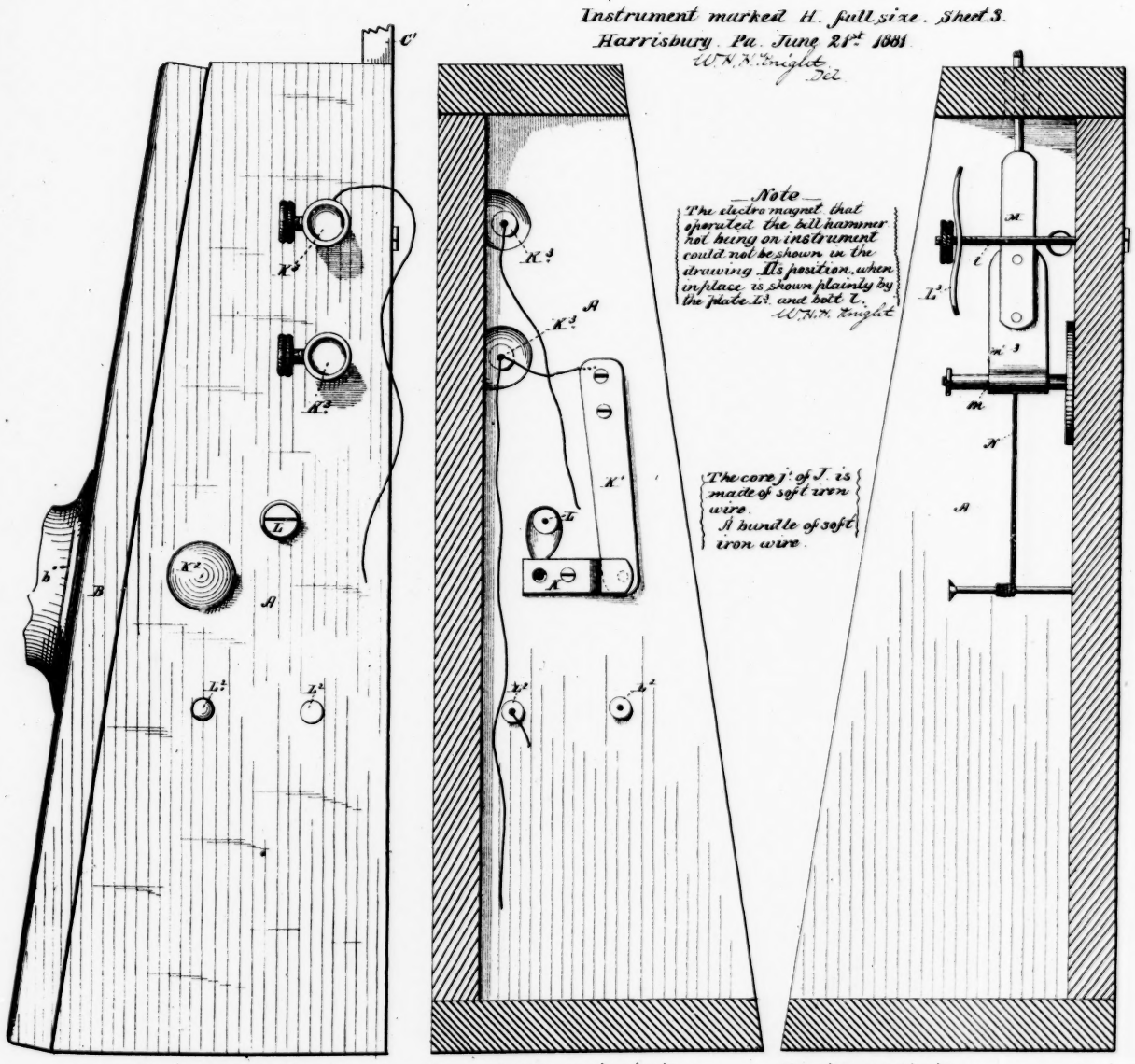
Front elevation, open.



Longitudinal section on line x x.

AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked H. full size. Sheet 3.
Harrisbury Pa. June 21st 1881
W.N.N. Knight Del



Elevation of right side,

Inside of right side,

Inside of left side,

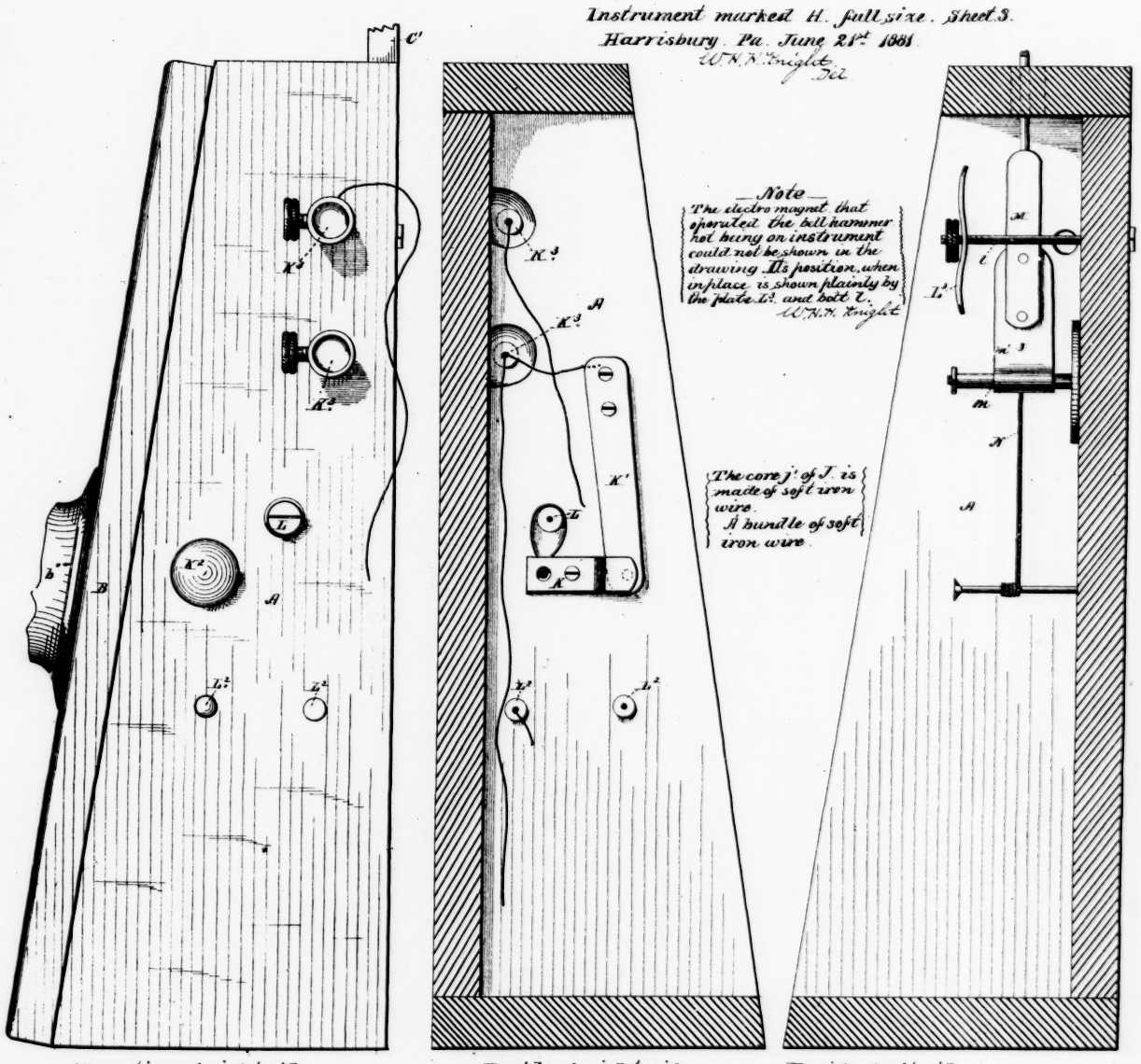
Note
The electro magnet that operated the bell hammer not being on instrument could not be shown in the drawing. Its position, when in place is shown plainly by the plate L^3 and bolt l.
W.N.N. Knight

The core j' of J. is made of soft iron wire.
A bundle of soft iron wire.

References
A Body of instrument,
B Door " " " "
b Mouth peice,
b' Break in b.
b^2 Hinges to door,
C Bell to instrument,
C' Support to bell,
D Casting for supporting diaphragm iron
D' Plate to support contact spring
D^2 Contact spring
d Screw securing D^2 to D'
d' Aperture through D'.
d^2 Carbon holding cup brass
d^1 Carbon block in d^2.
E' Plate or bracket to hold intermediate carbon cup brass,
e Block of wood on end of E',
e' Screw securing e and E' to B.
F Diaphragm corrugated iron,
f Rubber ring
f' Wire to hold diaphragm in place,
G Pressure spring for diaphragm
G' Block to which G is attached
g Adjusting screw to G.
g' Wood insulator between B and D'.
g^2 Screw securing D' to D.
g^3 Rubber sleeve insulating D' from g^2.
H Adjusting screw to D'
h Rubber sleeve insulating D' from H.
h' Wire to diaphragm conducting wire
I Carbon holding cup { I^2 Intermediate carbon
I' Carbon ball in I { holding tube, wood brass
J Induction coil. j Band holding J. in place,
j' Wire core of J, K Signal plate
K' Contact spring, K^2 Key, K^3 Binding posts
L Screw to secure switch L' Conductors
L^2 Switch contacts { L^3 Plate to hold electro
l Bolt to plate L^3 { magnets for bell in place.
M Armature connected with bell hammer,
m Pivotal point of M. m' Spring to M
N Cord to increase power of spring m'

W.N.N. Knight

Instrument marked H. full size. Sheet 3.
Harrisbury Pa. June 21st 1881
W.H.N. Knight
Del



Elevation of right side,

Inside of right side,

Inside of left side,

Note
The electro magnet that operated the bell hammer not being on instrument could not be shown in the drawing. Its position, when in place, is shown plainly by the plate L^2 and bolt l.
W.H.N. Knight

The core j' of J. is made of soft iron wire.
A bundle of soft iron wire.

References

A. Body of instrument,
B. Door " " " "
b. Mouth peice.
b'. Break in b.
b^2. Hinges to door.
C. Bell to instrument,
C'. Support to bell,
D. Casting for supporting diaphragm iron
D'. Plate to support contact spring
D^2. Contact spring
d. Screw securing D^2 to D'.
d'. Aperture through D'.
d^2. Carbon holding cup brass
d^3. Carbon block in d^2.
E. Plate or bracket to hold intermediate
" carbon cup brass,
e. Block of wood on end of K'.
e'. Screw securing e and E. to B.
F. Diaphragm corrugated iron.
f. Rubber ring
f'. Wire to hold diaphragm in place.
G. Pressure spring for diaphragm
G'. Block to which G. is attached
g. Adjusting screw to G.
g'. Wood insulator between Band D'.
g^2. Screw securing D' to D.
g^3. Rubber sleeve insulating D' from g^2.
H. Adjusting screw to D'.
h. Rubber sleeve insulating D' from H.
h'. Wire to diaphragm conducting wire
I. Carbon holding cup { I^2 Intermediate carbon holding tube, wood (brass)
I'. Carbon ball in I.
J. Induction coil, j. Band holding J. in place.
j'. Wire core of J, K. Signal plate
K'. Contact spring, K^2. Key, K^3. Binding posts
L. Screw to secure switch. L'. Conductors
L^2. Switch contacts. { L^3. Plate to hold electro magnets for bell in place.
l. Bolt to plate L^2
M. Armature connected with bell hammer,
m. Pivotal point of M. m' Spring to M.
N. Cord to increase power of spring m'.

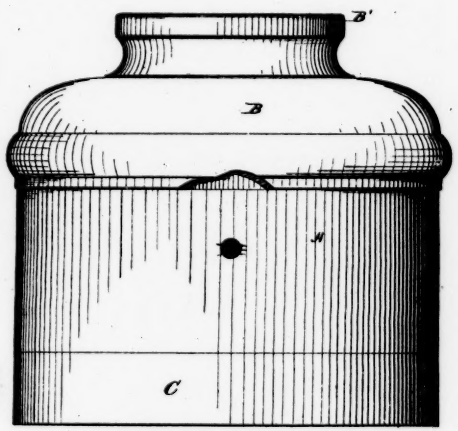
W. H. N. Knight

AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked I.

Harrisburg Pa.
April 28th 1881.
W. H. H. Knight del

Side elevation full size.



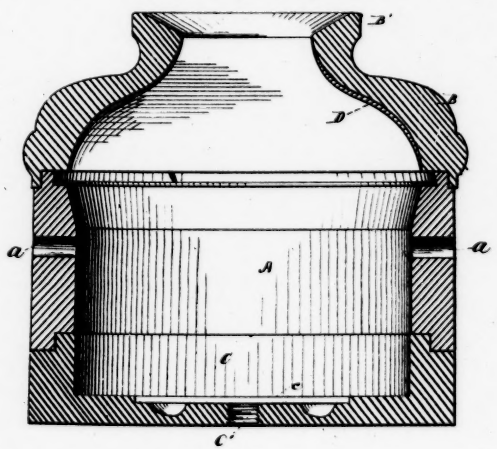
Inside of cover of box is lined with plaster of paris. the edges and surface of which are rough sorten and uneven.
W. H. H. Knight.

References—

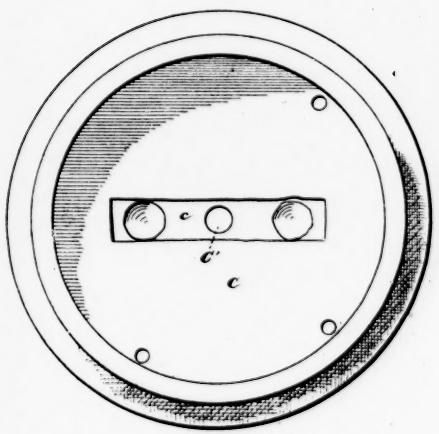
A. Body of instrument.
B. Cap of instrument.
B'. Mouth piece.
C. Bottom cap.
C'. Aperture through C.
c. Recess in C inside
D. Plaster paris lining to B.
a. Apertures in A for screw cups.

W. H. H. Knight.

Longitudinal section full size.



Plan of bottom inside.

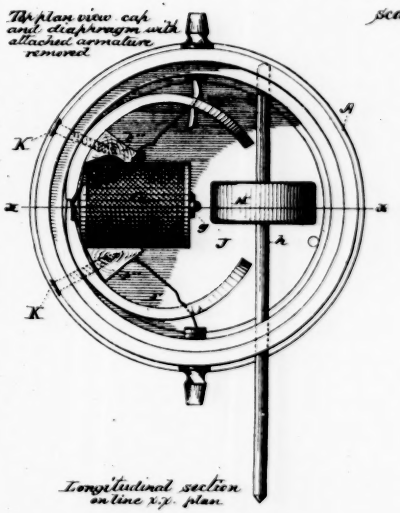


Instrument marked K.

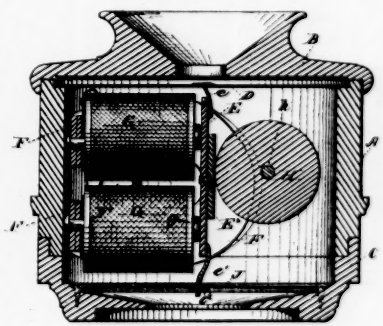
Harrisburg Pa. April 28th and 29. 1881
W. H. H. Knight. del

scale full size.

Top plan view cap and diaphragm with attached armature removed



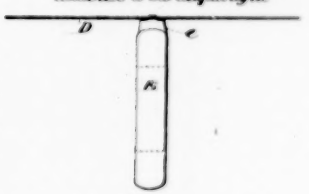
Longitudinal section on line x.y. plan.



References—

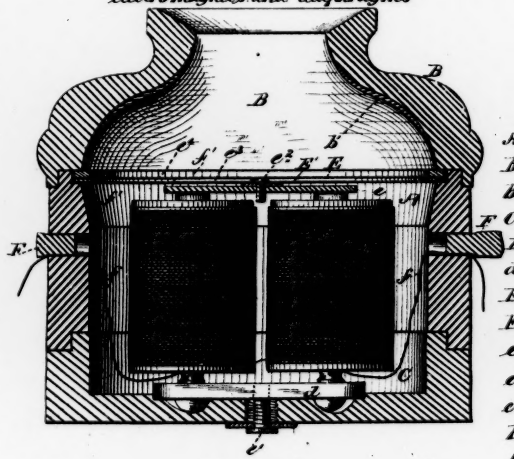
A. Body of instrument black walnut
B. Cap of " " top " "
C. Cap of " " bottom " "
D. Diaphragm brass.
E. Armature iron.
E'. Plate on armature brass.
e. Plate connecting armature to diaphragm brass
F. Permanent magnets.
f''. Blocks of wood to secure magnets to part A
G. Electro magnet. g. Cores of same
H. Friction roll. h. Shaft of same
J. Lower diaphragm. Fin.
e'. Rod connecting diaphragm J to armature — e². Nut on rod e'.
K. Wood screws fastening magnets to case.

Front view of armature attached to the diaphragm.
W. H. H. Knight

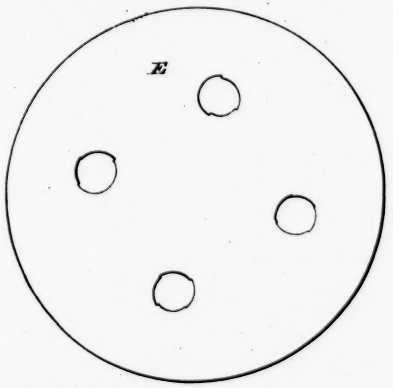


Instrument marked. I. one form
Harrisburg July 12th 1881
W.H.N Knight Del.

Longitudinal section showing electro magnets and diaphragms



Upper diaphragm perforated



References.

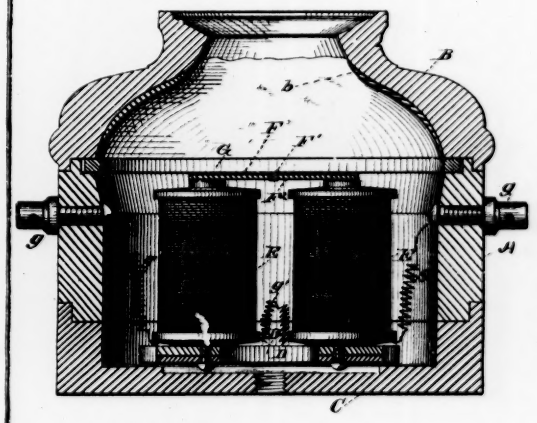
A. Body of instrument.
B. Cap " " " "
b. Plaster paris lining to B.
C. Lower cap.
D. Electro magnets.
d. Bar supporting magnets.
E. Upper diaphragm.
E'. Lower " "
e. Armature of magnets
e'. Screw holding d. in place
e². Screw holding E'. to e.
F. Plugs to hold wire,
f. Wire or conductors
e³. Paper ring between E. and E'
e⁴ Paper ring or gasket above E.
W.H.N. Knight

— Note —

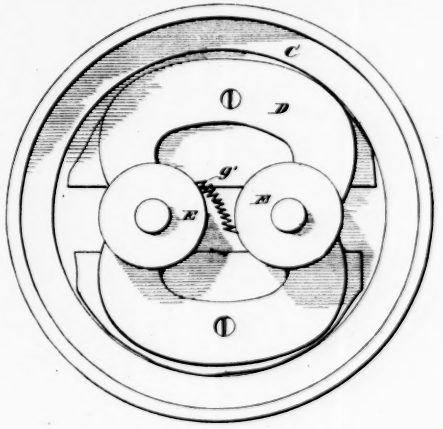
The above view shows the instrument provided with two diaphragms as used in one form. The upper of the two diaphragms being perforated as shown.
W.H.N. Knight

Reproduced instrument marked I.
Harrisburg July 22nd 1881
W.H.N. Knight Del

Longitudinal section.



Cap C detached showing magnets



— References —

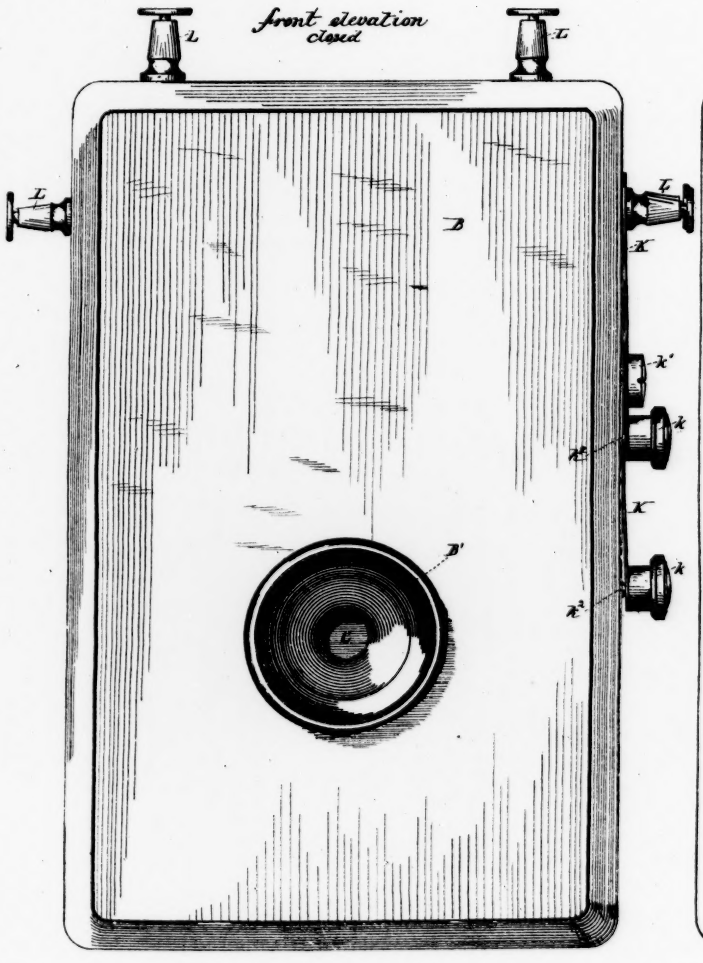
A Body of instrument.
B Cap " " "
b Plaster paris lining to B.
C Lower cap to A.
D Permanent magnet.
E Electro magnets.
F Diaphragm.
G Ring of wood.
g Binding posts.
g'. Wires or conductors. (diaphragm
F'. Rivet holding armature to
F². Armature

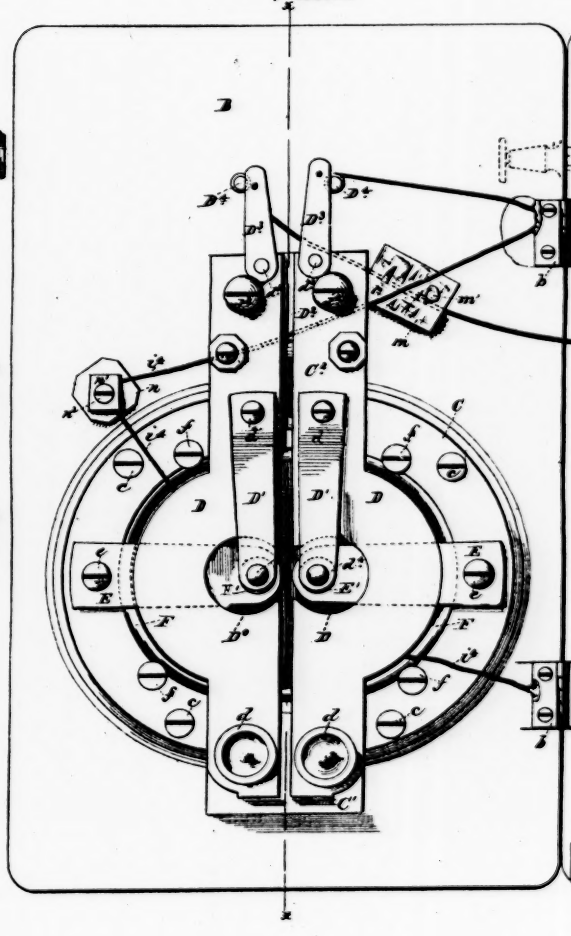
W.H.N. Knight

AMERICAN BELL TELEPHONE COMPANY,- 19

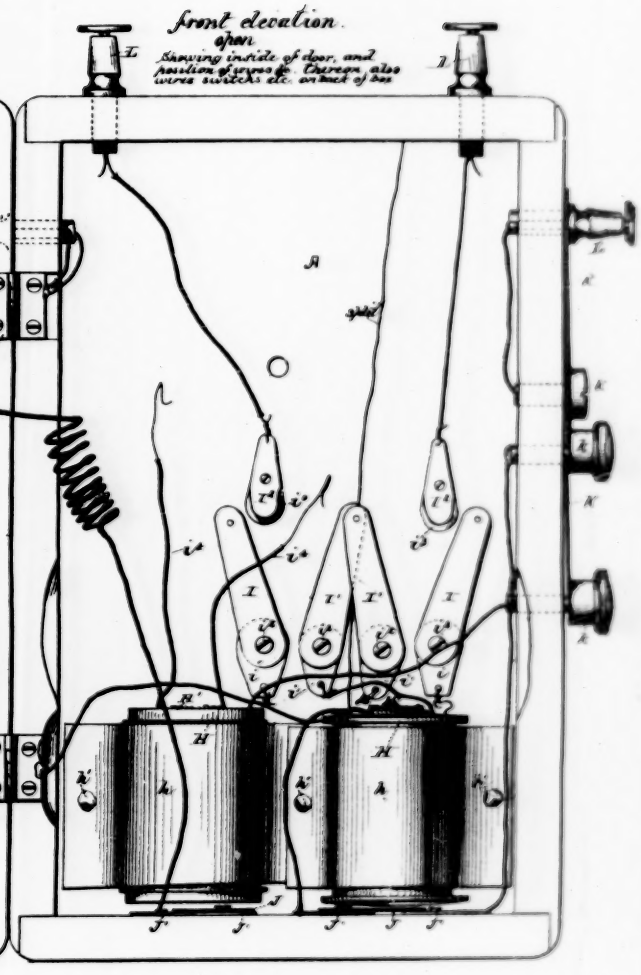
Instrument marked J. sheet 1.
full size
Harrisburg Pa
April 27th 1881
C.H.H. Knight del.

front elevation
closed





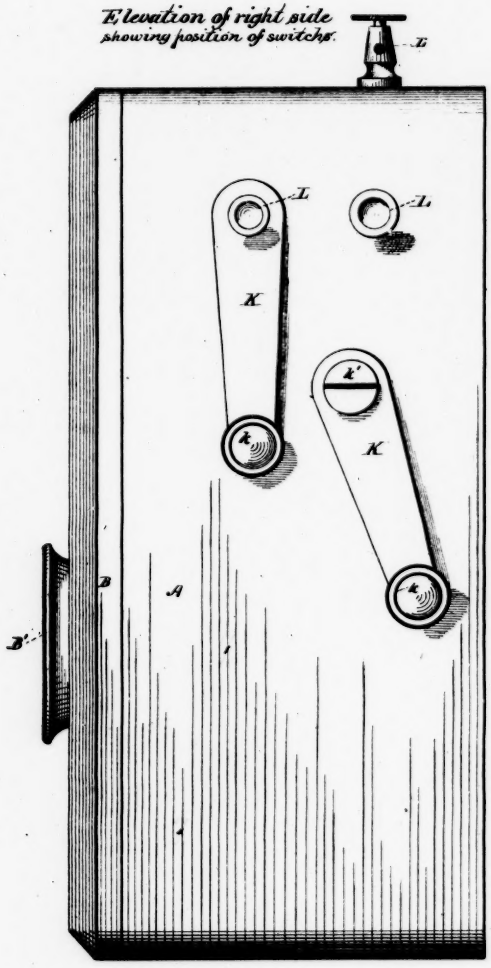
front elevation
open
Showing inside of door, and position of screws &c. Charger, also wire switches etc. on back of box



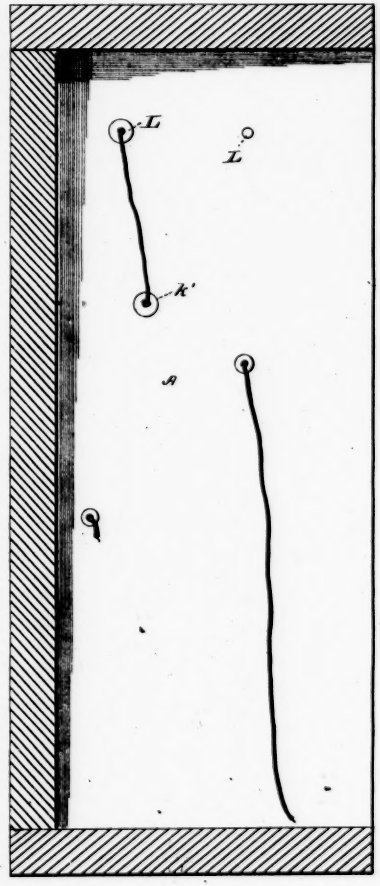
AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked J. sheet 2.
Harrisburg. Pa. June 13th 1881
W.H.H. Rugat
Del

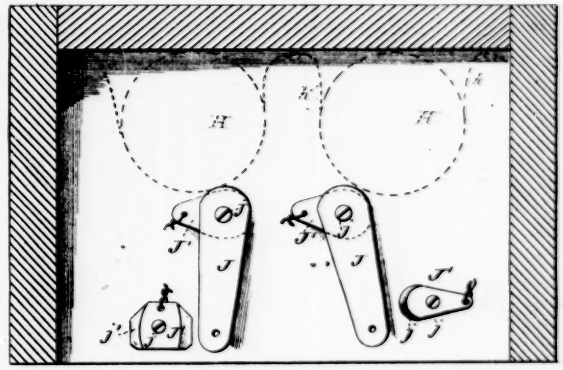
Elevation of right side
showing position of switchs.



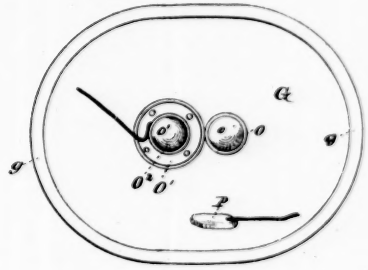
Elevation of right side inside
showing position of wires, etc



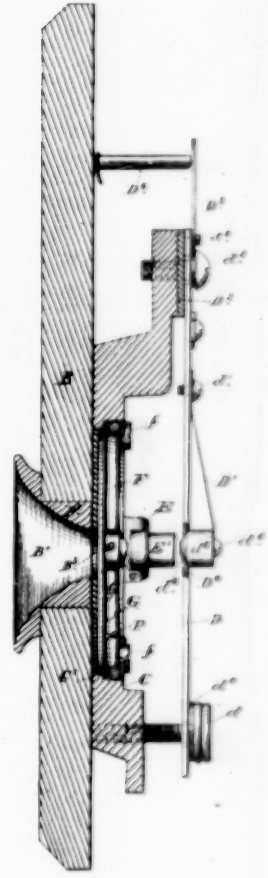
Plan of bottom inside
Showing position of switchs etc.



Plan of Diaphragm



Longitudinal Section
on line x x. front elevation



AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked J. sheet 3.
Harrisburg. June 14th. 1881

— References —

A. Body of instrument, of black walnut.
B. Door " " " " " " "
B'. Mouth piece " " " " " "
B². Block in door, making a part of B'. black walnut
B³. Thin piece of black walnut, coated with shellac
b. Hinges. brass
C. Casting to support diaphragm, etc, iron
C'. Flange on C. to hold diaphragm
c. Screws holding C. in place upon B.
D. Plate to hold contact spring. brass.
D². Aperture through D.
D'. Contact springs. of brass
D². Insulating plate of wood between C and D.
D³. Switches attached to plate D. brass
D⁴. Posts to which conductors are attached
d. Adjusting screw to plate D.
d². Rubber insulator between d. and D.
d'. Screws securing D'. to D.
d⁴. Screws securing plate D. to casting C.
d³. Pivots of switch's D³.
d⁴. Screws securing carbon holding cup to springs D'
d⁵. Carbon holding cup attached to springs D'. brass
d⁶. Carbon ball in cup d⁵.
E. Bracket, or support to hold carbon holding tube
E'. Carbon holding tube, wood
e. Screw securing bracket E. to casting C.
F. Ring of brass wire to hold diaphragm in place,
f. Screws holding ring F. in place,
G. Diaphragm
g. Insulateing material covering edge of diaphragm
" and surrounding same, paper,
H. Induction coils
H'. Wire core of coils. bundle of soft iron wire.
h. Straps of tin to hold coils H. in place,
h'. Nails securing strap h. to back
I. Switches on back of instrument,
I'. " " " " " " " "
i. Plates to hold switches in place, and also for conductors,
i'. "
i². Screws to hold switches I. I'. in place,
I². Contact plates on back of instrument, for conductors
i³. Beveled edges of plates I².
i⁴. Wire, sections of conducting wire,
J. Switches on bottom of instrument, inside,
J'. Contact plates " " " " " " " "
j. Screws in J. and J'. to hold them in place.
j'. Beveled edges of J'.
K. Switces, on outside of instrument,
k. Knobs on switches K.
k'. Screw to hold switch in place.

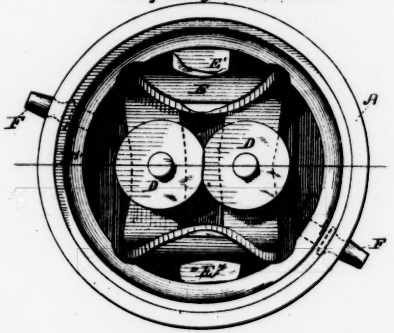
L. Binding posts
m. Paper holding conductors in place.
m'. Tack to hold paper in place,
n. Contact plate for conductors,
n'. Collar to hold conductors in place
n³. Screw through n and n'.
O. Carbon holding cup on diaphragm. brass.
o. Carbon in O.
O'. Rubber insulating plate on diaphragm
O². Carbon holding cup on insulator O'.
o'. Carbon in cup O²
P. Point on G. at which wire is connected.

W.H.H. Knight.

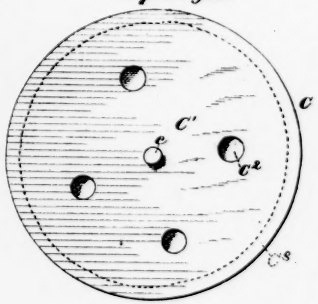
AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked L. full size.
Harrisburg Pa. June 29th 1881.
W. H. H. Knight del

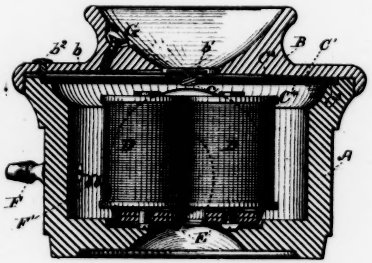
Top view cap and diaphragm removed



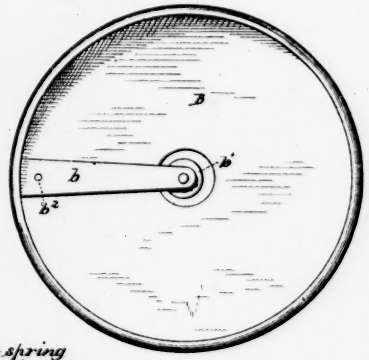
Diaphragm



Section on line y.y.



Inside of cap.

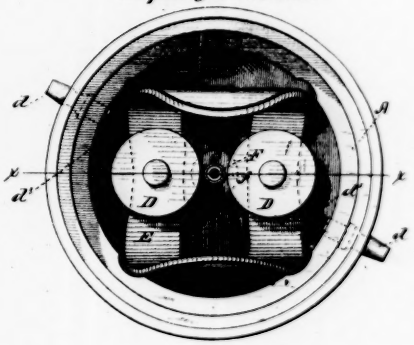


References,
A. Body of instrument.
B. Cap of same. b. Pressure spring
b'. Metal block on spring. b² Rivet in same
C. Compound diaphragm. two part
C'. Upper diaphragm. C⁴ Lower diaphragm
C². Perforations in C'. c. Rivet connecting C' and C⁴
C³ Paper ring between C' and C⁴
D. Electro magnets. E. Permanent magnets
E'. Wood wedges to hold E in place
F. Binding posts. F''. Wires from D to F.
G. Adjusting screw to spring b.
b². Rivet holding spring b to cap.
W. H. H. Knight.

Note
The upper diaphragm is made of copper perforated. the lower one is made of iron.
W. H. H. Knight

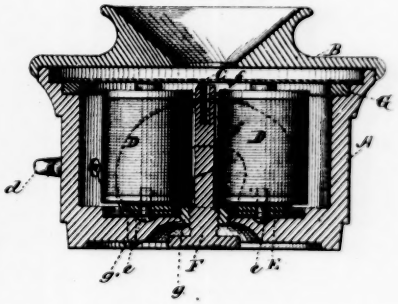
Instrument marked M. full size
Harrisburg Pa. June 26th 1881.
W. H. H. Knight del.

Top view. cap and diaphragm removed



References.
A. Body of instrument
B. Cap - - - -
C. Diaphragm
D. Electro magnets
d. Binding posts
d'. Wires.
E. Permanent magnet
e. Screws connecting E. to D.
F'. Adjusting screw or post
f. Recess for screw in end of F'
G. Rubber ring } post F
g. Nut in end of body A for adjusting
g'. Screw to secure E. to A.
W. H. H. Knight.

Longitudinal section on line x x. top view



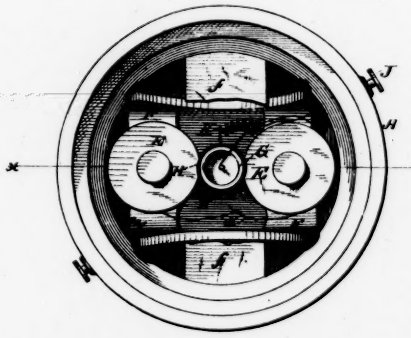
Note
The magnet E is secured to the body of the instrument by screws one of which is shown by dotted lines at g'.
At one time the diaphragm of this instrument was made of tin and was rigidly attached to the post F. by a screw which entered the recess f in the post F.
W. H. H. Knight

AMERICAN BELL TELEPHONE COMPANY,- 19

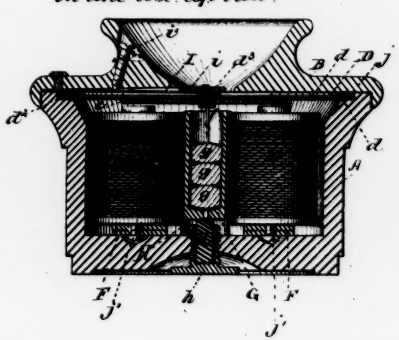
Reproduction of instrument L.
Harrisburg Pa. July 25th. 1881.
W.H.H. Knight

Full size.

Top view cap removed.



Longitudinal section
on line x x top view.



References

A. Body of instrument
B. Cap " " "
D. Compound diaphragm.
d. Upper half of D. copper perforated.
d'. Lower " " iron.
d². Ring of paper between d. and d'.
d³. Rivet connecting d. and d'.
E. Electro-magnets.
e. Armature of E. attached to d'.
F. Permanent magnet.
f. Blocks to hold F. in place.
G. Tube to hold carbon balls. wood.
g. Carbon balls in G.
H. Tin tube to guide G.
h. Screw to adjust G.
h'. Rubber block in h.
I. Tension spring for D. steel.
i. Circular block on spring I.
i'. Adjusting screw for I.
J. Binding posts.
j. Paper ring above D.
j'. Screws holding magnets E. to F.
K. Conducting wires.

W.H.H. Knight

Note

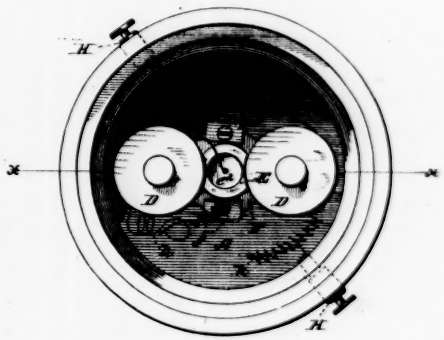
The above drawings show one of the original forms of instrument L.

W.H.H. Knight

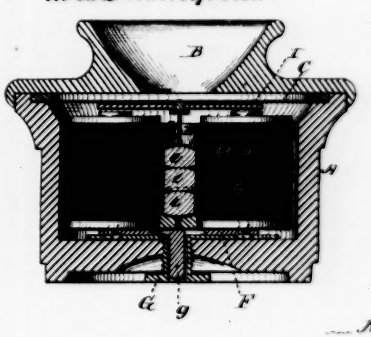
Reproduction of instrument M.
Harrisburg Pa. July 25th. 1881.
W.H.H. Knight Del.

Full size

Top view cap removed.



Longitudinal section
on line x x top view



References

A. Body of instrument
B. Cap " " "
C. Diaphragm.
D. Electro magnets.
E. Carbon holding tube.
e. Carbon balls in E.
e'. Lower contact plate in tube.
e². Upper " " " " "
F. Bar holding D.
f. Guides for E. of tin.
G. Adjusting screw for E.
g. Rubber block in G.
H. Binding posts.
h. Conductors.
I. Armature attached to

W.H.H. Knight

Note

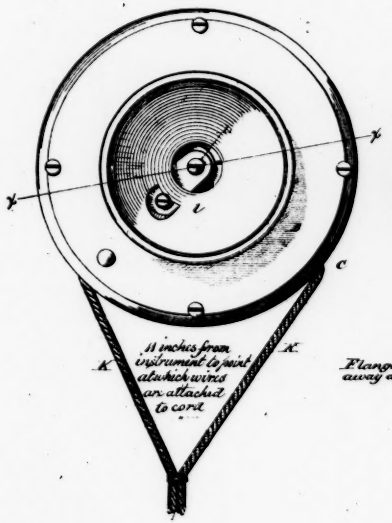
The above drawings show the original form of instrument M.

W.H.H. Knight

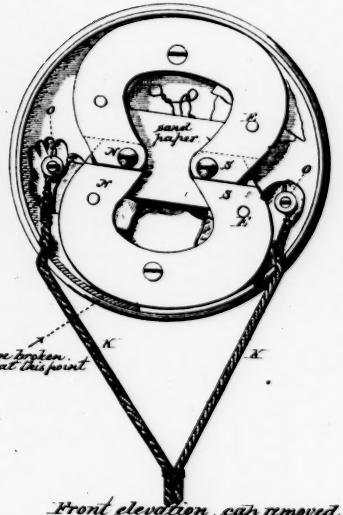
AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked N. full size
Harrisburg Pa.
April 29th and 30th 1881
W. N. Knight Jr.

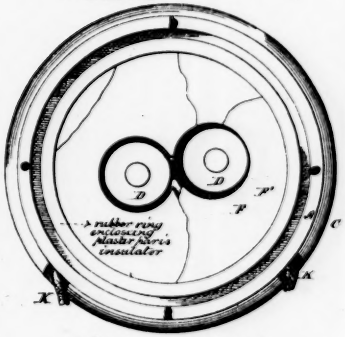
Front elevation.



Rear elevation
rear cap removed

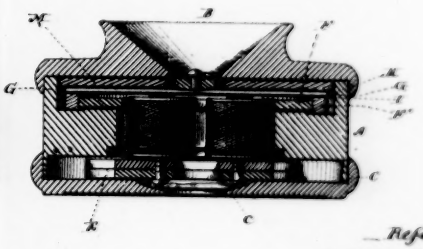


"Front elevation, diaphragm removed to show insulating material"



A thin paper ring is interposed between the diaphragm and insulating material

Longitudinal section
on line x y. Front elevation

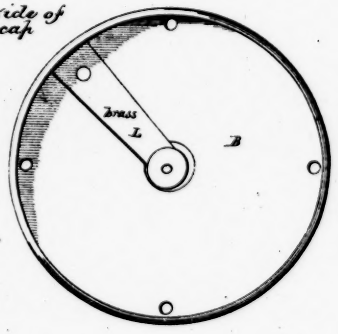


References

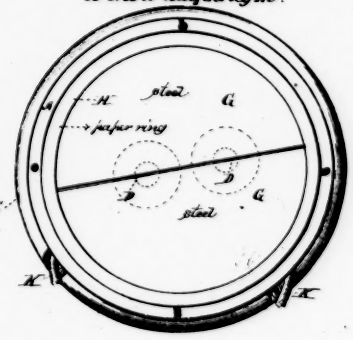
A Body of instrument
B Front cap of - - - -
C Rear - - - - -
c Paper pasted over hole in C
D Electro magnets
E Permanent magnets
F Plaster paris disc
F' Rubber ring about disc
G Diaphragm steel
H and L Paper rings
K Conductors
L Pressure spring
l Adjusting screw to L
M Wooden disc
O Binding posts

W. N. Knight

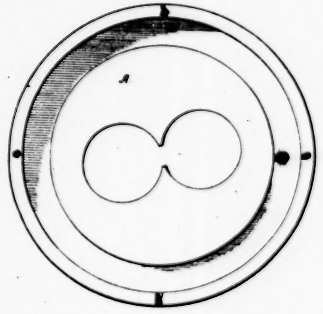
Inside of cap



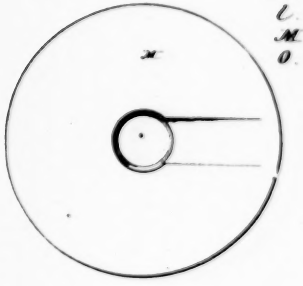
Front elevation cap removed to show diaphragm.



Front view of body of instrument.



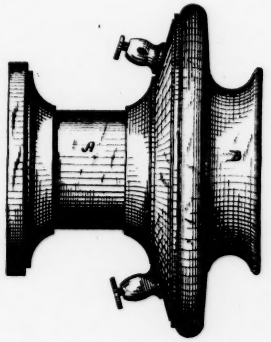
Disc of wood



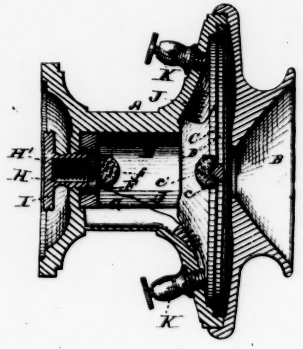
AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked O. full size,
Harrisburg Pa. June 20th 1881
W.H.H. Knight

Side elevation,



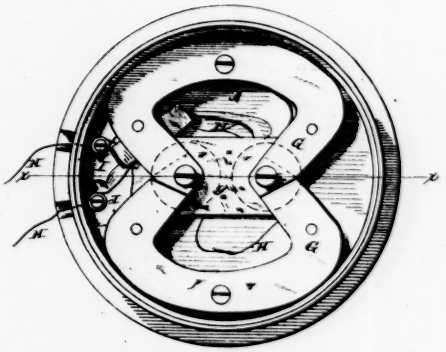
Longitudinal section



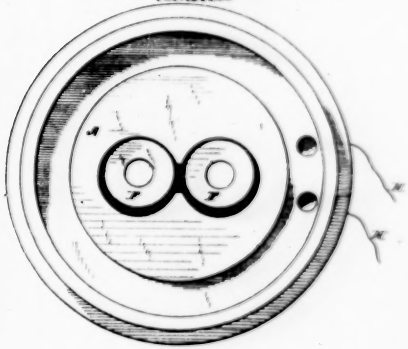
References
A. Body of instrument
B. Cap of same
C. Diaphragm
c. Carbon cup on diaphragm brass
c'. Carbon ball in cup c.
D. Card board ring
E. Recess for carbon holder
F. Lower carbon cup brass
f. Carbon ball in same
G. Wood ring
H. Recess in adjusting screw
H'. Spiral spring in same
I. Screw. adjusting.
J. Wires, or conductors.
K. Screw cups.
W.H.H. Knight

Instrument marked Q. full size.
Harrisburg Pa. June 20th 1881
W.H.H. Knight

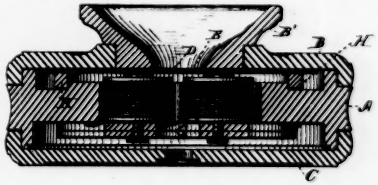
Rear elevation, cap off.



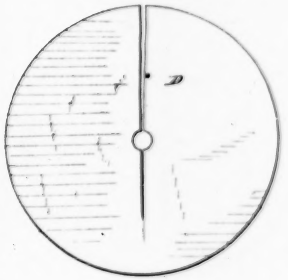
Front elevation cap, diaphragm and rubber ring removed



Longitudinal section



Diaphragm



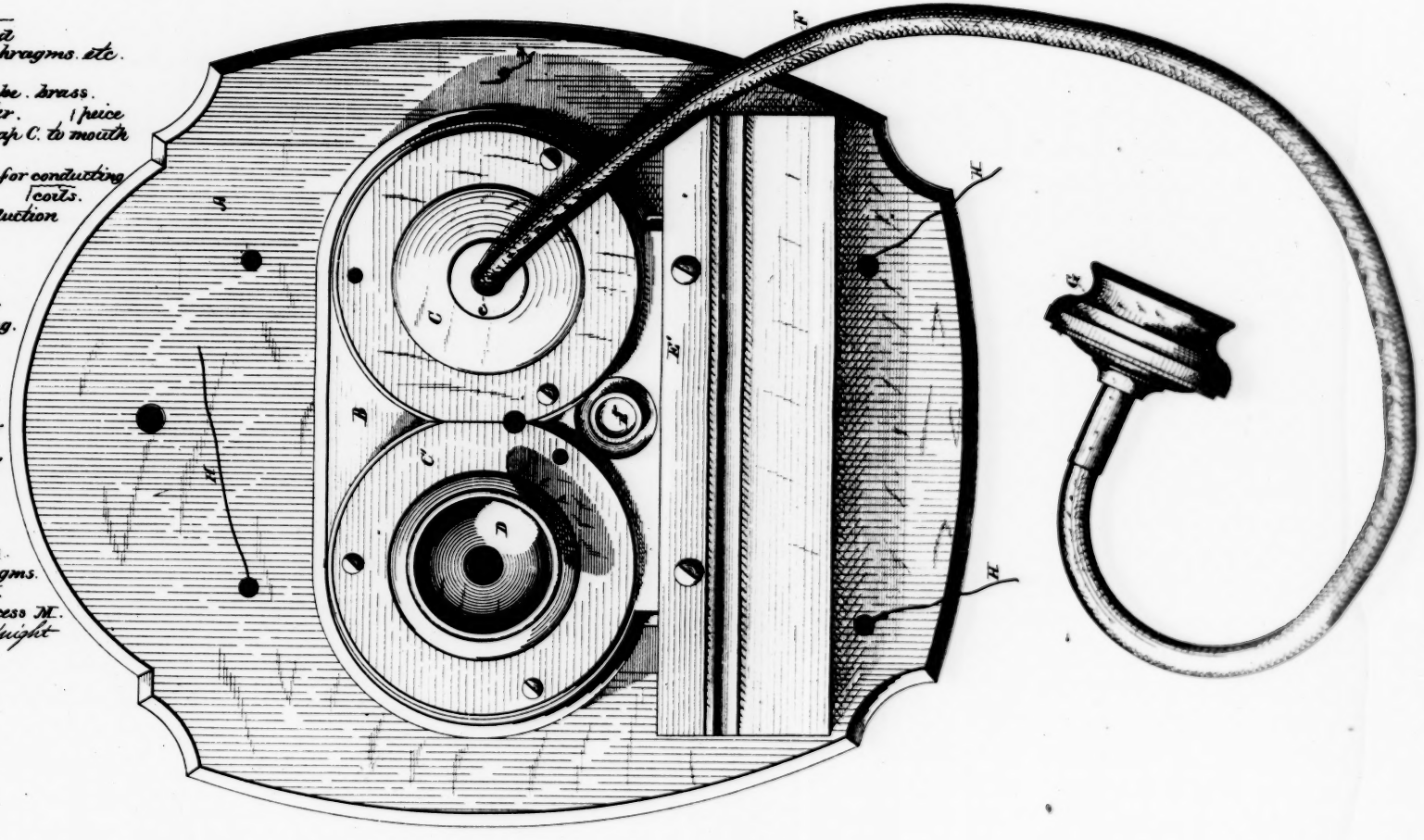
References
A. Body of instrument
B. Cap " " "
B'. Movable mouth peice
C. Rear cap
D. Diaphragm
E. Paper ring above D
F. Electro magnets
G. Permanent magnet.
g. Paper insulator
H. Wires, or conductors.
I. Screw cups
W.H.H. Knight

AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked P. full size
Harrisburg Pa June 28th 1881
W.N. Knight del.

Front elevation.

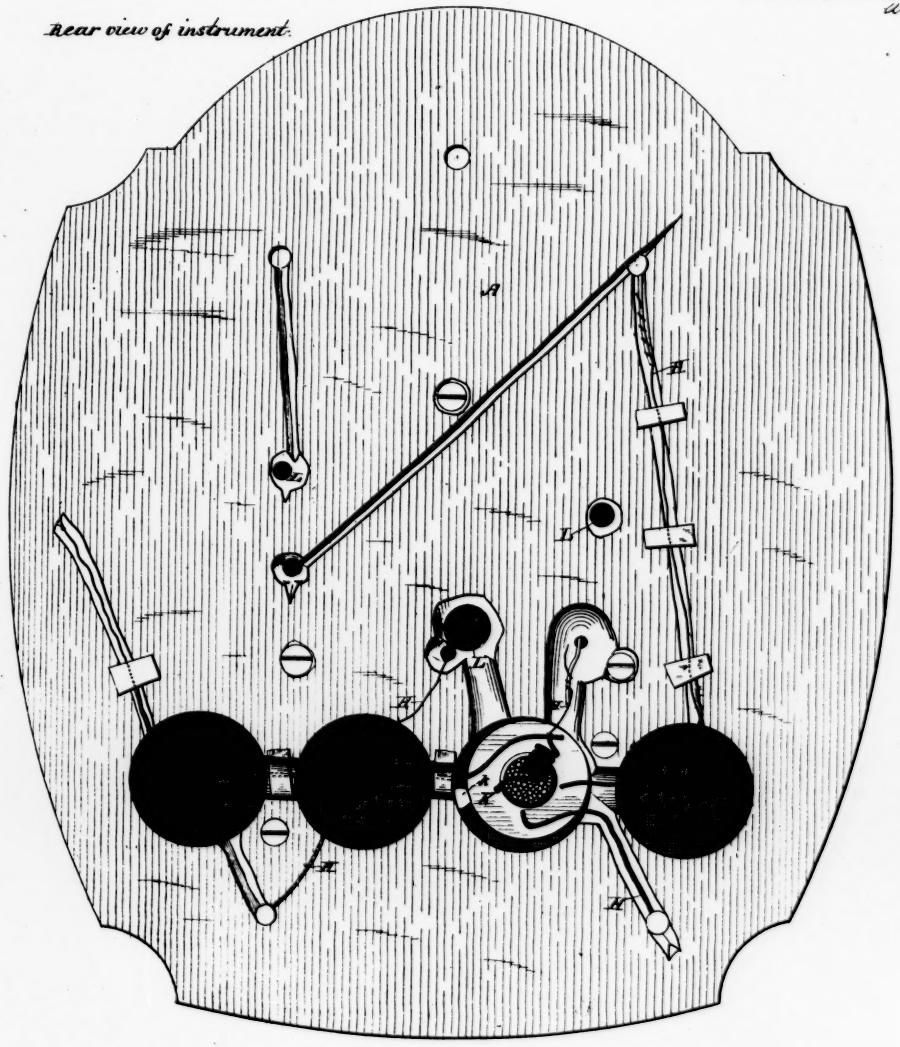
—References.—
A. Back or base board
B. Block to hold diaphragms etc.
C. Cap of receiver.
c. Tube to rubber tube. brass.
C'. Cap of transmitter. 1 peice
c'. Brass tube from cap C. to mouth
D. Mouth piece.
E. Adjusting screw for conducting
. . spring. 1 coils.
E'. Block to hold induction
F. Rubber tube.
G. Ear piece.
H. Conductors.
H'. Conducting spring.
h. Carbon cup on spring.
h'. Conductor on spring.
h². Pivot to spring.
I. Recess in back for
. permanent magnet.
I'. Aperture in back for
. electro-magnet.
J. Recesses in block E'
. for induction coils
K. Induction coil.
k. Wedge for coil K.
L. Apertures for wires.
M. Recesses for diaphragms.
N. Rubber ring in M.
O. Carbon block in recess M.
W.N. Knight



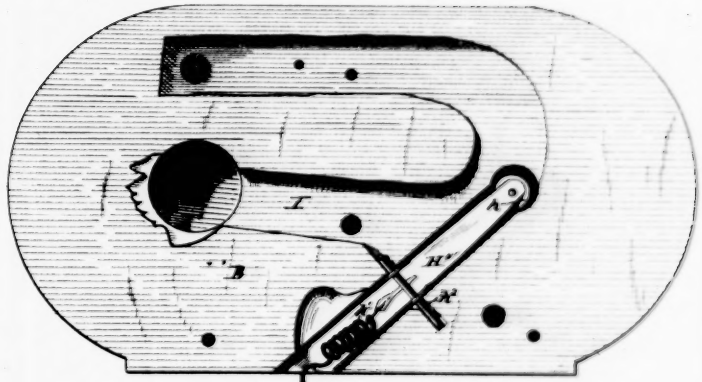
AMERICAN BELL TELEPHONE COMPANY,- 19

Instrument marked P. sheet 2.
Harrisburg July 7th. 1881.
W. H. Knight

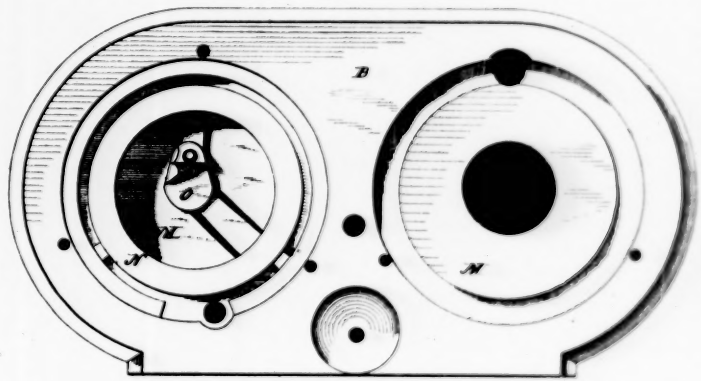
Rear view of instrument.



Rear view of block
showing recess for magnt. etc.



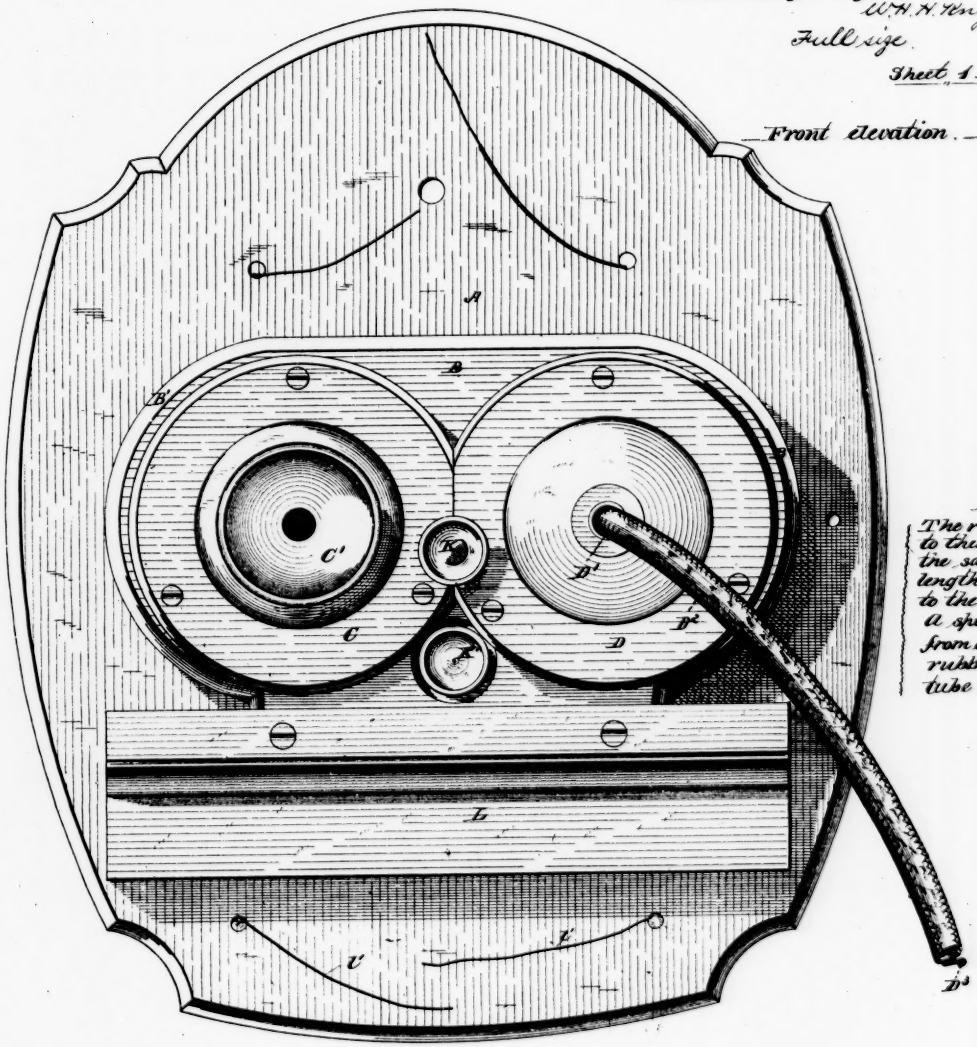
Front view of block
caps and diaphragms off



AMERICAN BELL TELEPHONE COMPANY,- 19

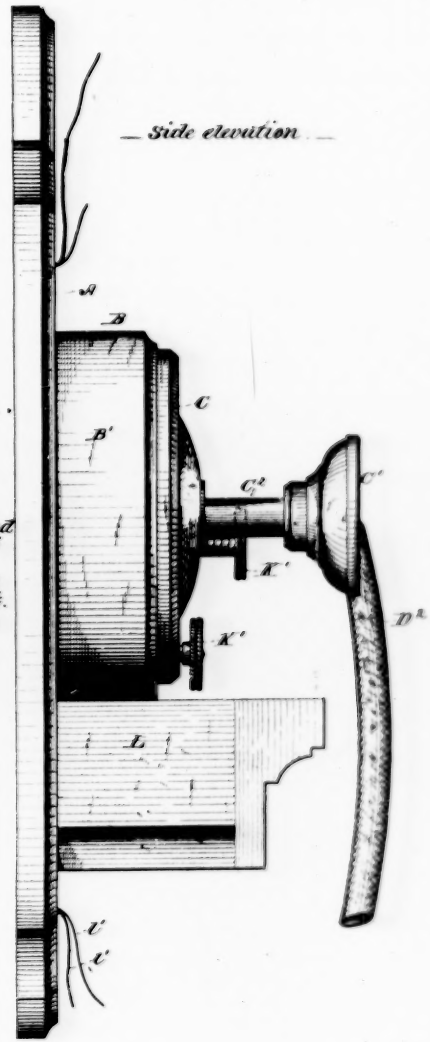
Reproduction of instrument marked P.
Harrisburg August 1st 1881.
W.H.N. Knight del.
Full size.
Sheet 1.

Front elevation.



Note
The rubber tube attached to this instrument is of the same diameter and length of that attached to the original instrument. A spiral spring extends from end to end of the rubber tube, inside of tube. W.H.N. Knight

Side elevation

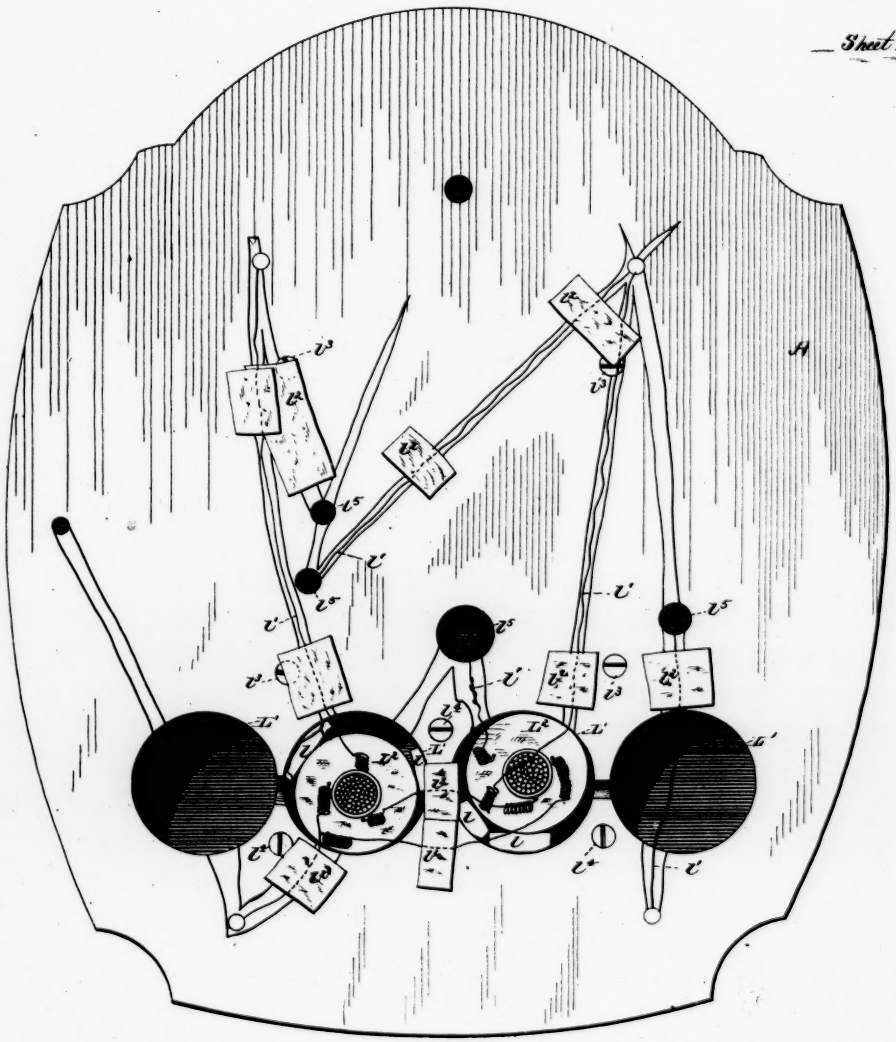


AMERICAN BELL TELEPHONE COMPANY,- 19

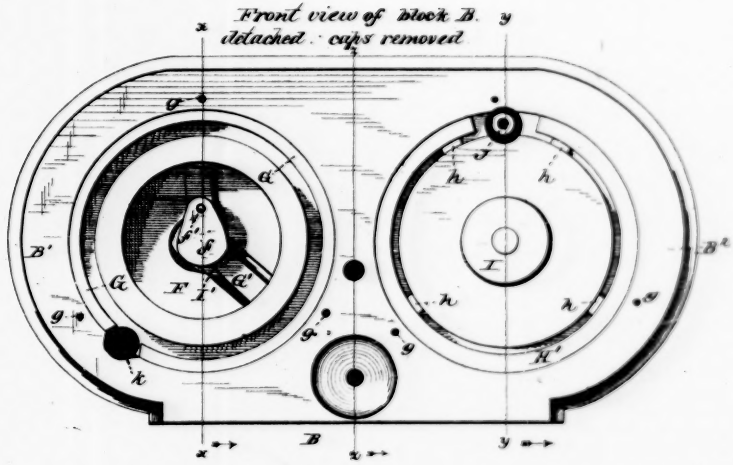
Reproduction of instrument P. full size.
Harrisburg August 6th 1881.
W.H.H. Knight.

— Sheet. 2. —

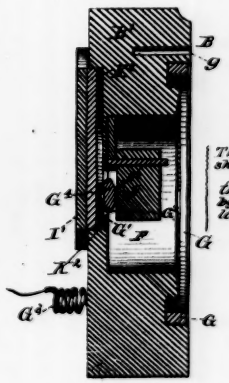
Rear elevation



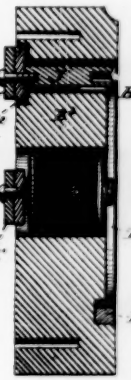
Front view of block B. detached. caps removed



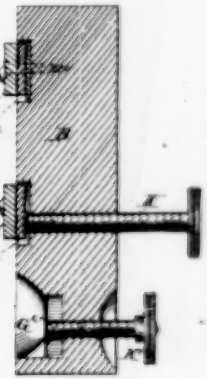
Section on line x x.



Section on line y y.



Section on line z z. showing adjusting screw for spring and magnet cylinder.

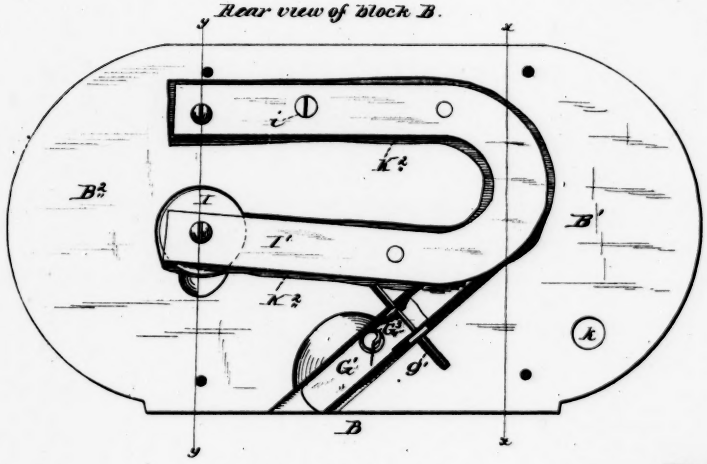


— Note —
The sectional views do not show diaphragms. Each view is taken in the direction indicated by the arrow at bottom letter.
W.H.H. Knight

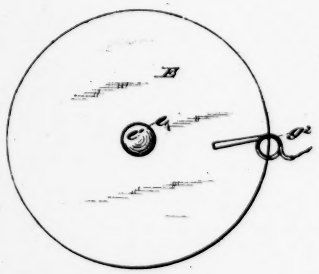
Reproduction of instrument marked P. full size
Harrisburg August 6th. 1881.
W.H.N. Knight del

Sheet, 3.

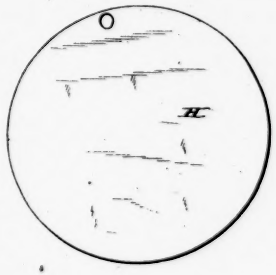
Rear view of block B.



Diaphragm of transmitter.



Diaphragm of receiver.



Edge view of diaphragm E.

Note
The diaphragms are made of tin. and are of same thickness
The conductor g². is soldered to diaphragm
W.H.N. Knight

References

A. Back or base board. black walnut
B. Block holding diaphragms, caps, etc
B'. Transmitting end of B.
B². Receiving " " "
C. Cap of transmitter. black walnut
C'. Mouth piece of transmitter walnut
C². Tube from C. to C'. brass
D. Cap of receiver. black walnut
D'. Tube from D. brass.
D². Rubber tube from D'. to ear piece.
D³. Spiral spring in D².
E. Diaphragm of transmitter.
e. carbon holding cup on B'.
e'. Carbon block in e.
F'. Recess in B'.
f. Carbon block in F'.
f'. Pin to hold f.
G. Rubber ring in F'. to support diaphragm
g. Screw holes for cap.
G'. Spring for transmitter.
G². Carbon holding cup on G'.
G³. Conductor attached to G'.
G⁴. Carbon ball in G².
g'. Support for G'. consisting of a pivot.
g². Conductor attached to E.
H. Diaphragm of receiver.
H'. Rubber ring to support H.
h. Blocks to hold H'. in place.
I. Electro magnet.
I'. Permanent magnet.
i. Screw holding I'. in place
J. Stud on I'. to hold H.
K. Adjusting screw to permanent magnet.
K'. " " " " " " carbon holding spring.
k. Aperture in B'. for conductor of transmitting diaphragm.
K². Recess in back of B. for permanent magnet.
L. Block on A. for induction coils.
L'. Recesses in L. for induction coils.
L². Induction coils in L'.
l. Wedges to hold induction coils in place.
l'. Wires or conductors.
l². Pieces of paper to hold l'. in place.
l³. Screws to hold block B to back A.
l⁴. " " " " " " L. " "
l⁵. Apertures in A. for conductors l'.

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22 Sheets--Sheet 1.

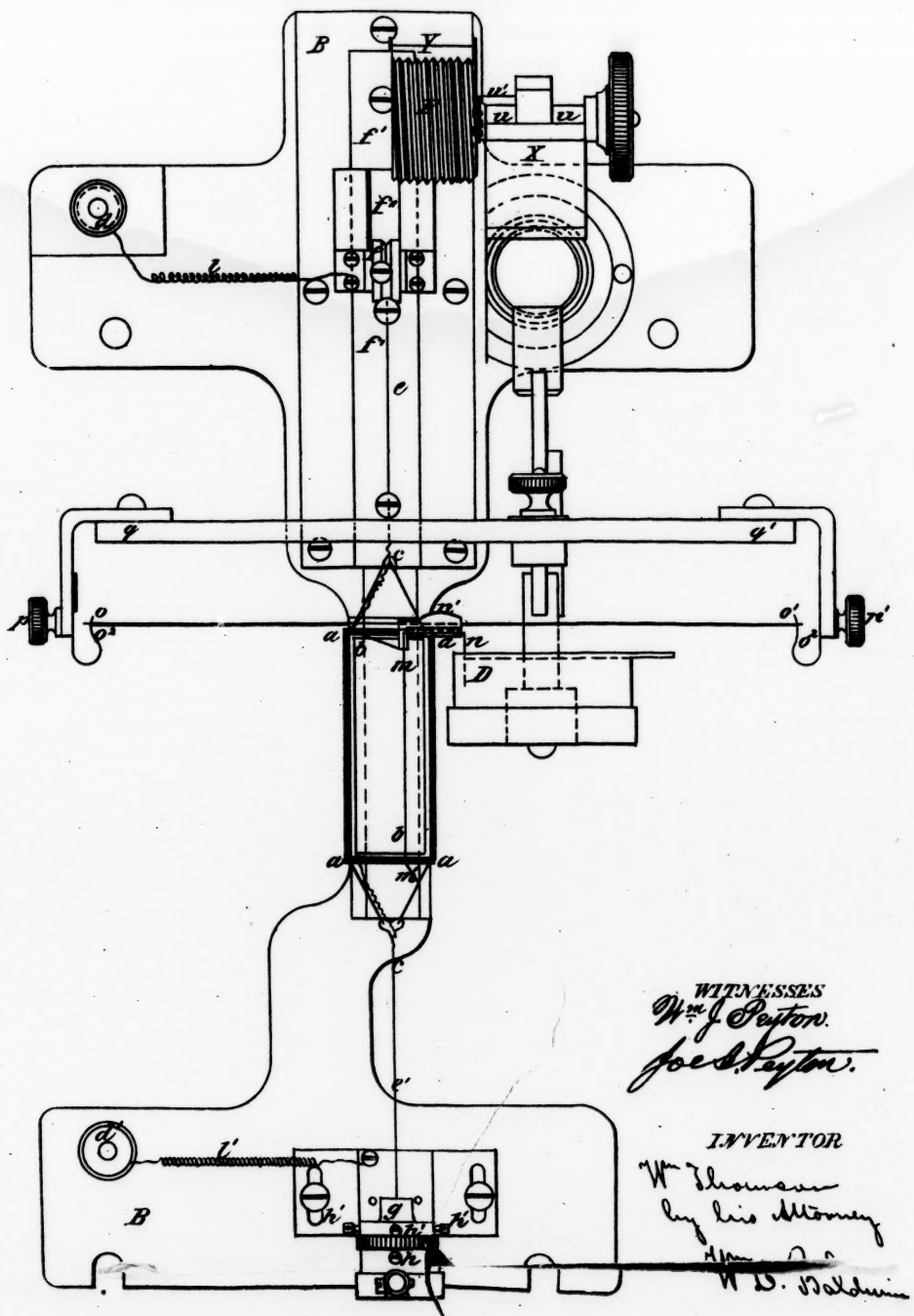
W. THOMSON.

Electric-Telegraph Apparatus.

2596

No. 156,897. Patented Nov. 17, 1874.

Fig. 7 (Sheet 1)



WITNESSES
Wm. J. Peyton.
Joe. S. Peyton.

INVENTOR
Wm Thomson
by his Attorney
W. D. Baldwin

22 Sheets--Sheet 2.

W. THOMSON.

Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17 1874.

Fig. 2 (Sheet 1)

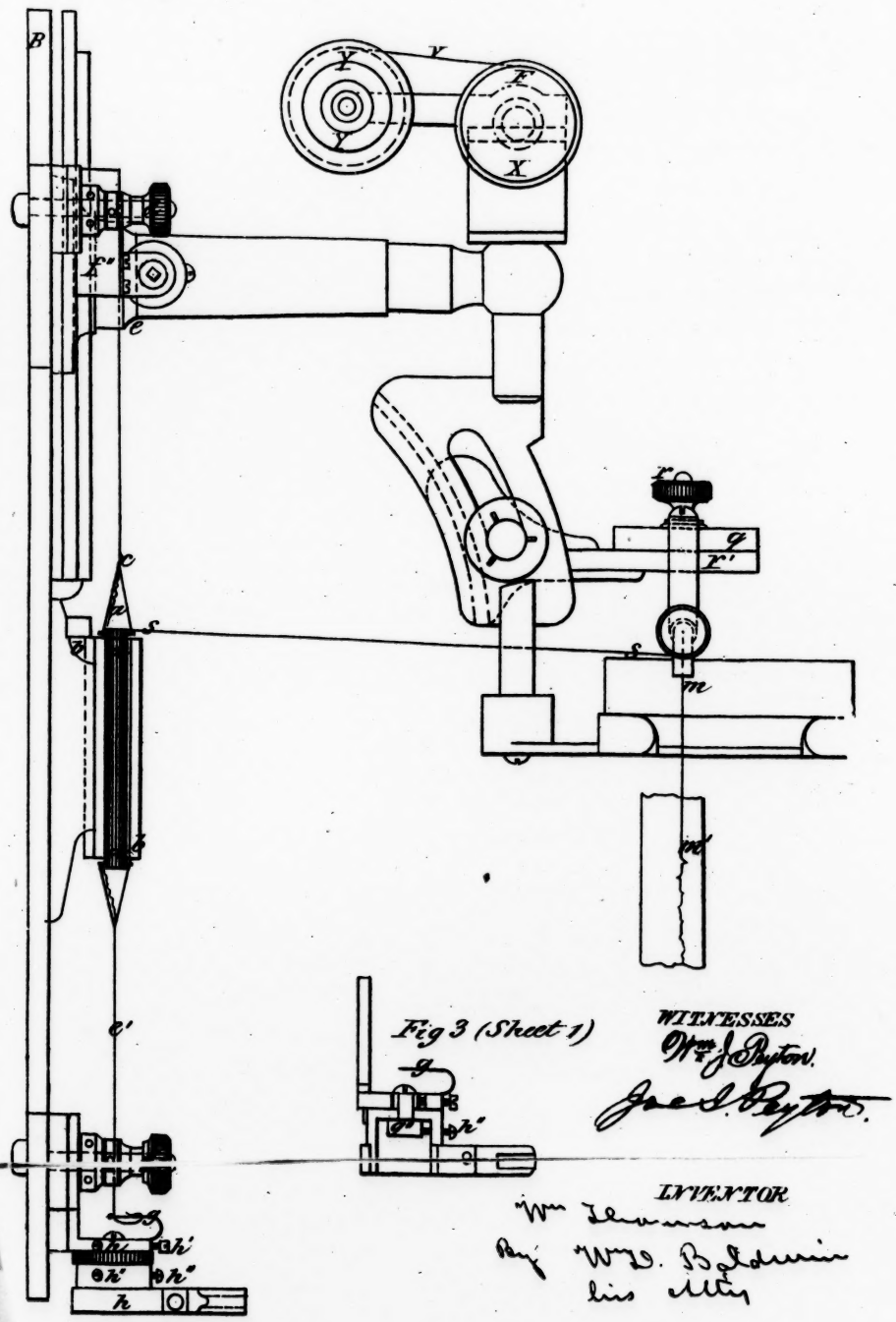


Fig 3 (Sheet 1)

WITNESSES

Wm J Baxton.

Jas L Baxton.

INVENTOR

Wm Thomson

Per Wm D. Baldwin

his Atty

22 Sheets--Sheet 3.

2598

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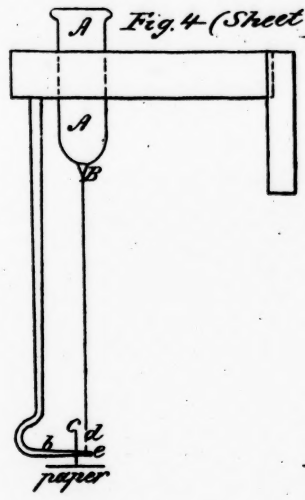
No. 156,897. Patented Nov. 17, 1874

Fig. 4 (Sheet 1)



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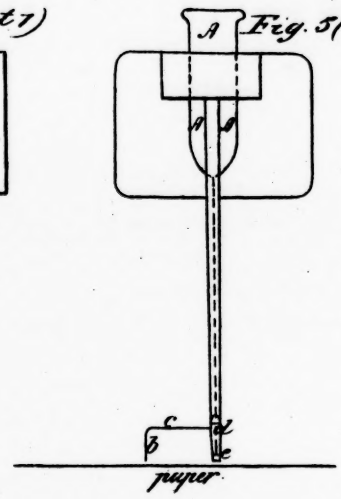
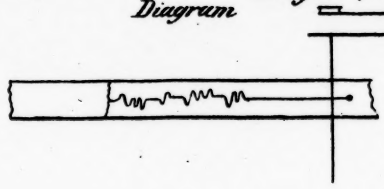


Fig. 5ª (Sheet 1)

Diagram



WITNESSES

Wm. J. Peyton

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Wm. D. Baldwin Jun Attorney

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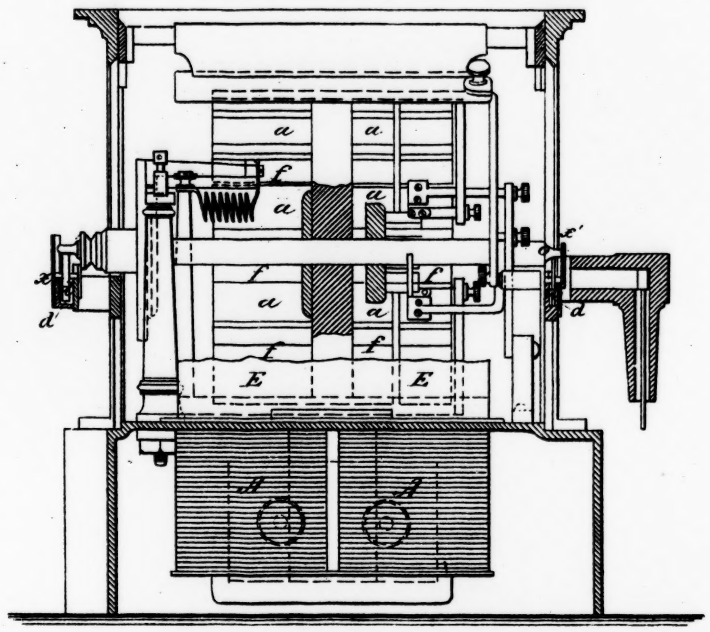
Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17, 1874.

Fig 6 (Sheet 1)



WITNESSES

Wm. J. Peyton

Jas. C. Peyton.

By

Wm. Thomson INVENTOR

Wm. D. Baldwin, Jr. Attorney

22 Sheets -Sheet 5.

2600

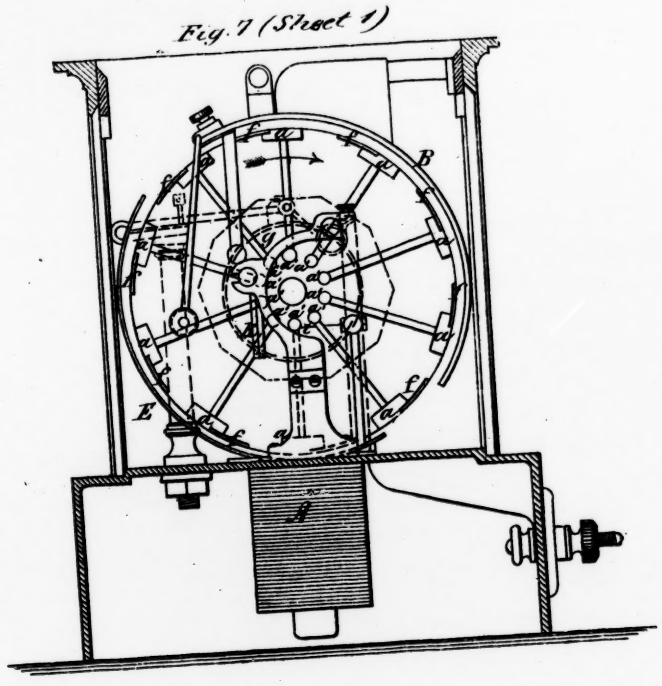
W. THOMSON.

Electric-Telegraph Apparatus

Patented Nov. 17, 1874.

No. 156,897.

Fig. 7 (Sheet 1)



WITNESSES

Wm J. Peyton.

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22 Sheets--Sheet 6.

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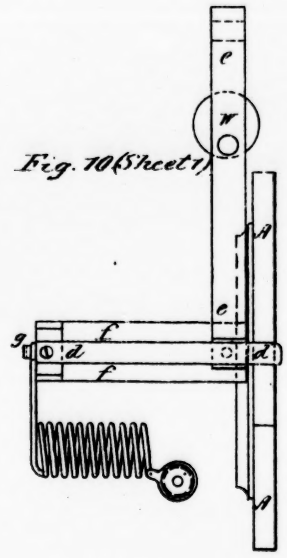
Electric-Telegraph Apparatus.

2601

No. 156,897. Patented Nov. 17, 1874.

Fig. 10 (Sheet 1)



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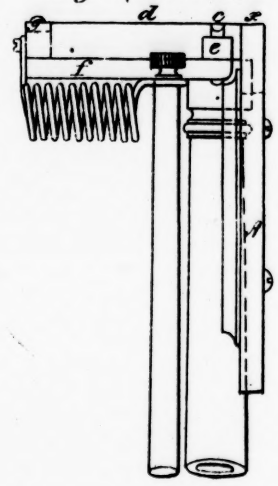

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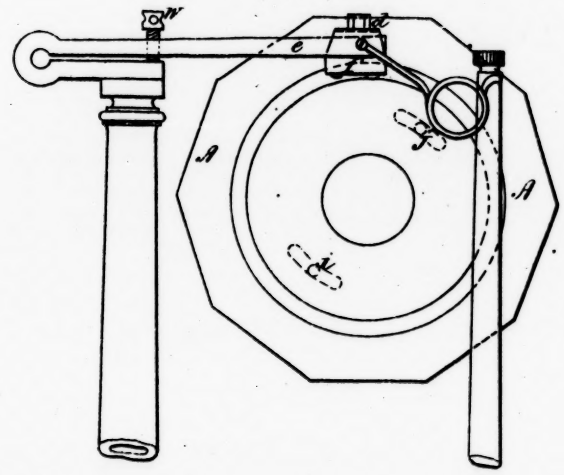

WITNESSES

Wm J. Peyton.

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22 Sheets--Sheet 7.

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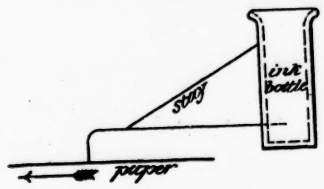
Electric-Telegraph Apparatus.

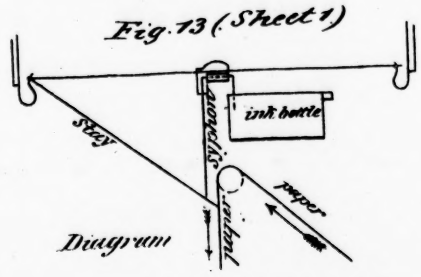
No. 156,897. Patented Nov. 17, 1874.

Fig. 11 (Sheet 1)



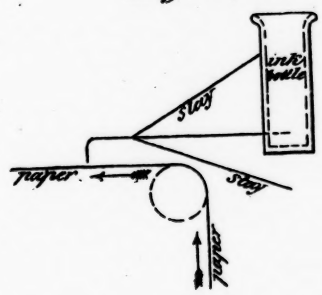
Diagram

Fig. 13 (Sheet 1)



Diagram

Fig. 12 (Sheet 1)



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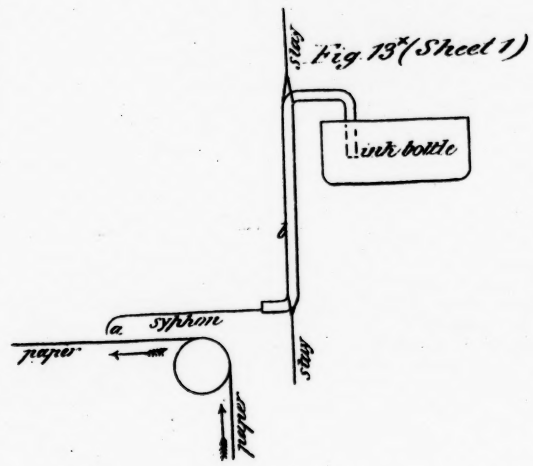

WITNESSES

Wm. J. Peyton.

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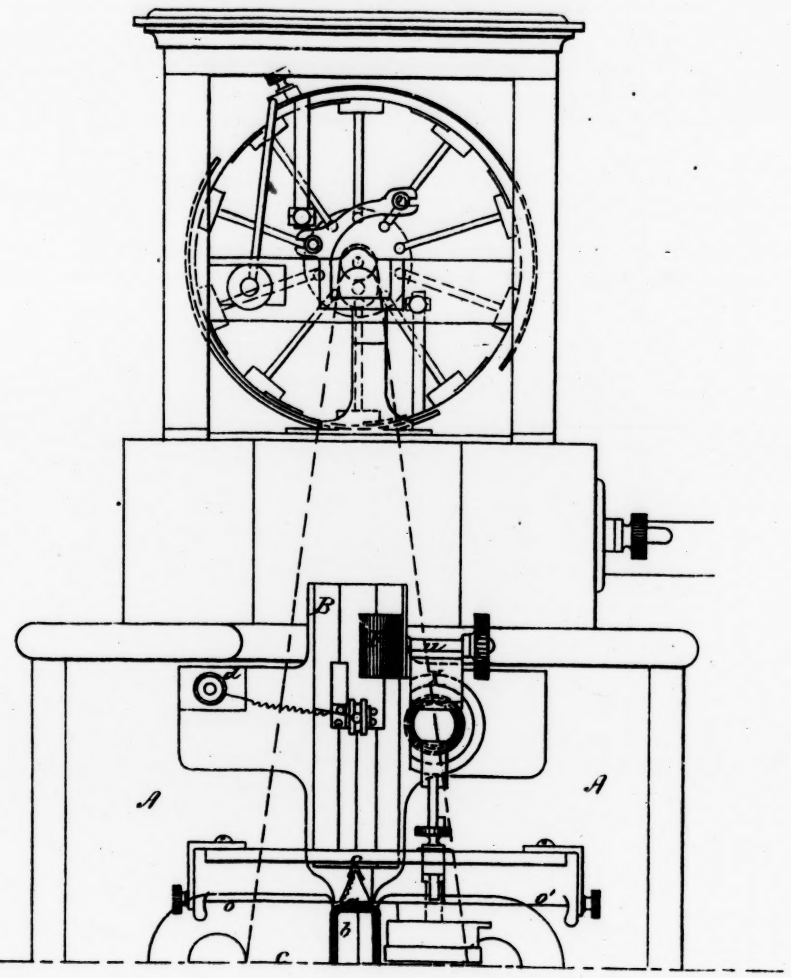
22 Sheets--Sheet 8.

W. THOMSON.

Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17, 1874.

Fig 1 (Sheet 2)



WITNESSES
Wm. J. Peyton.
Jas. L. Peyton.

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8

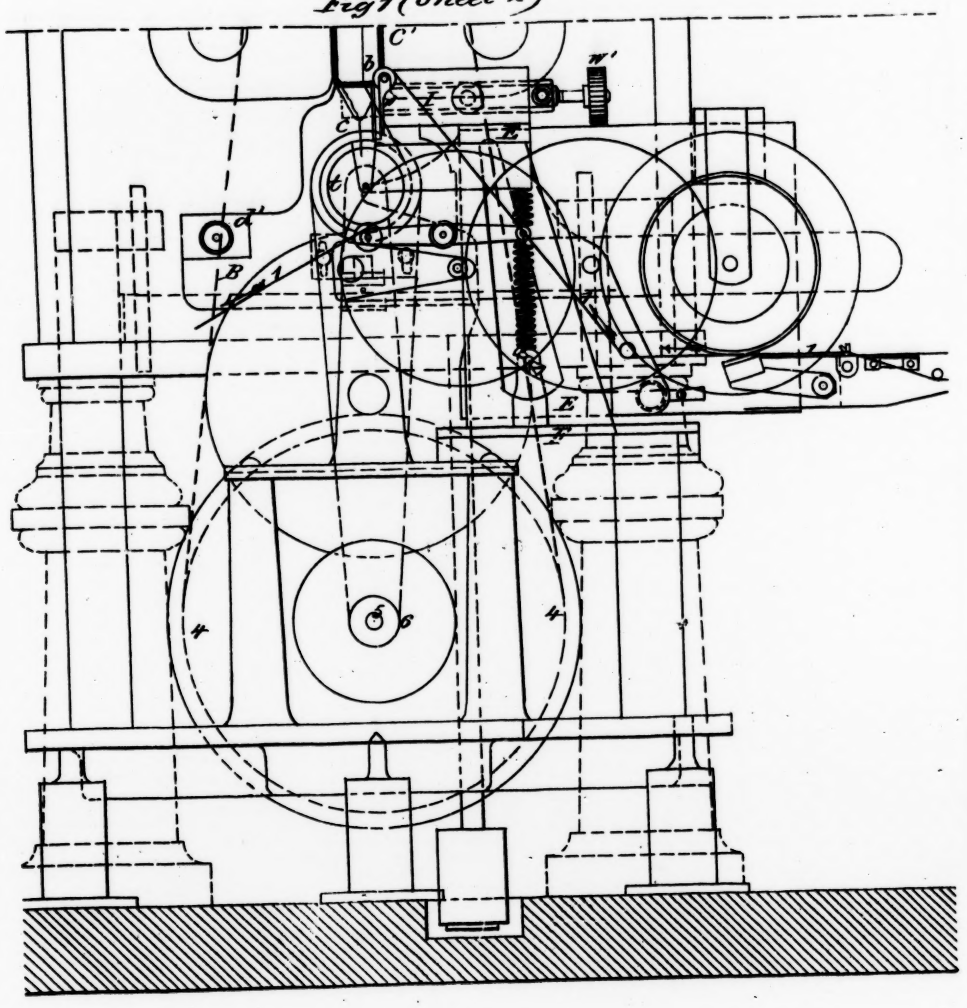
W. THOMSON.

Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17, 1874.

2804

Fig 1 (Sheet 2)



WITNESSES

Wm J. Peyton.

Jas. L. Peyton.

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INVENTOR

Wm Thomson

Wm D. Baldwin, his Attorney

22 Sheets--Sheet 10.

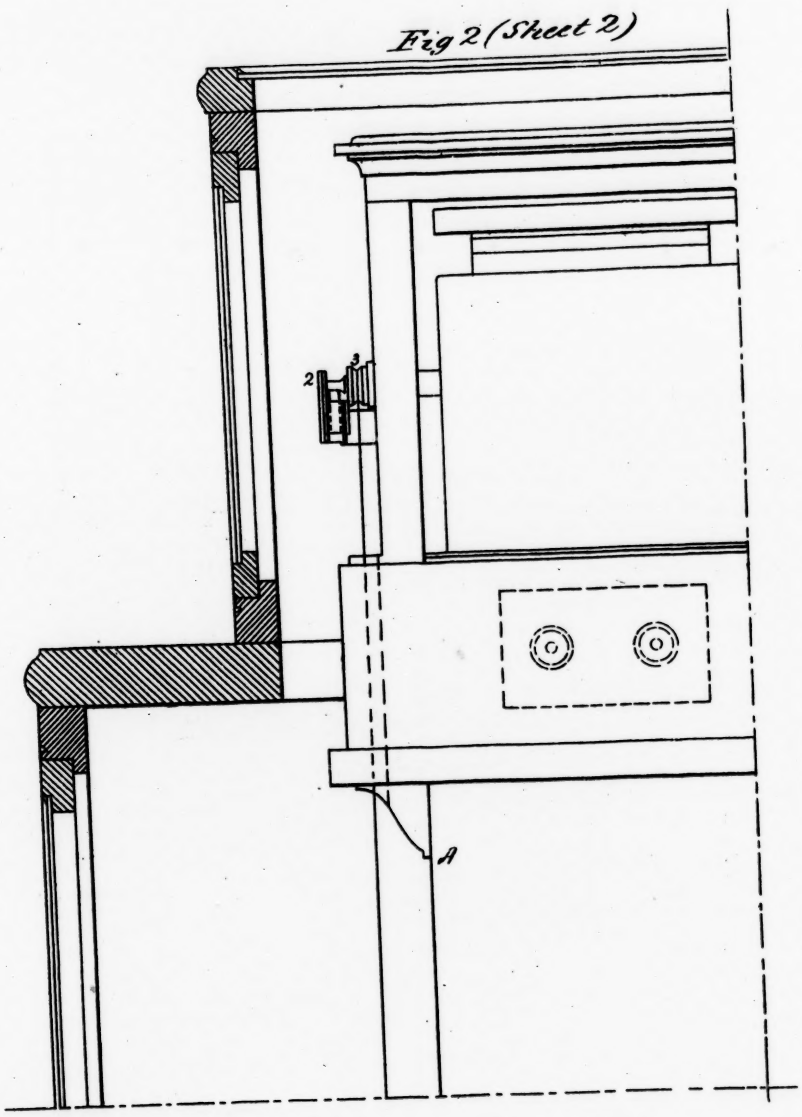
2805

W. THOMSON.

Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17, 1874.

Fig 2 (Sheet 2)



WITNESSES

Wm. J. Peyton

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22 Sheets--Sheet 11.

2086

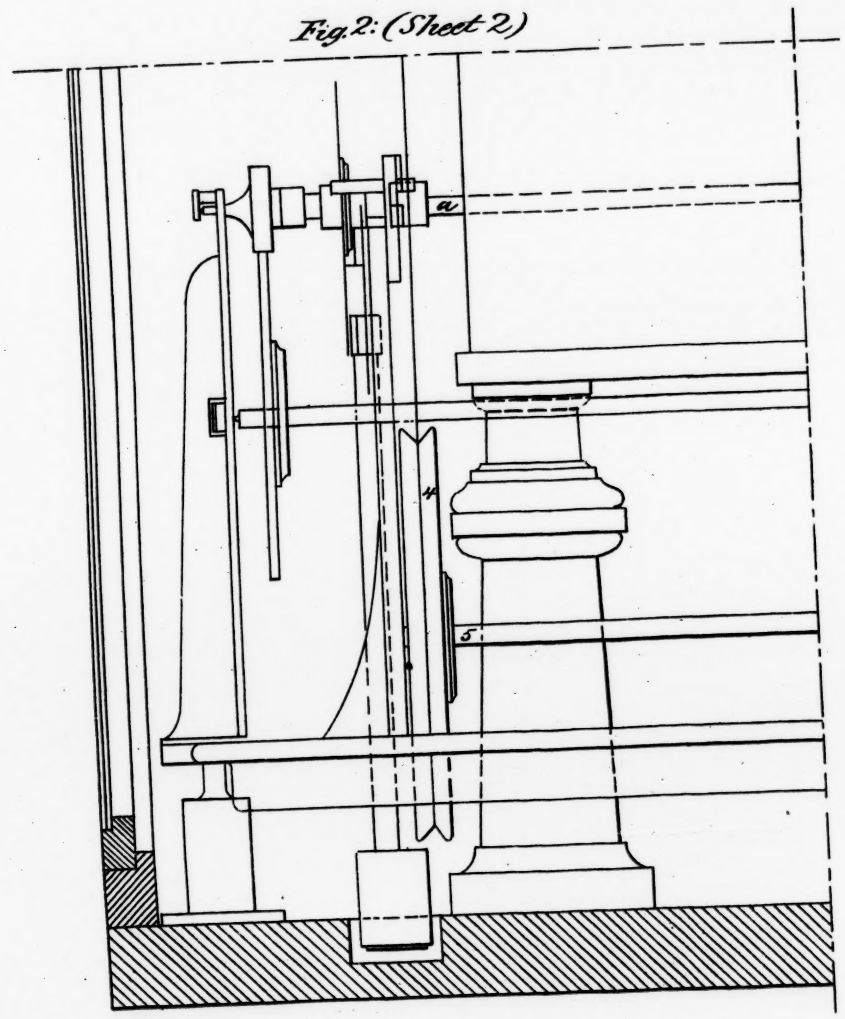
W. THOMSON.

Electric-Telegraph Apparatus.

No. 156,897

Patented Nov. 17, 1874.

Fig. 2: (Sheet 2)



WITNESSES

Wm. J. Peyton

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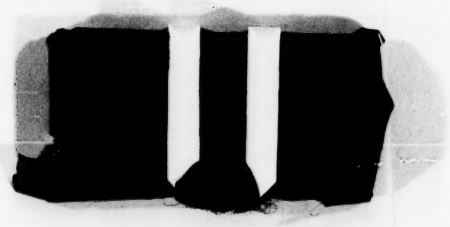

22 Sheets--Sheet 12.

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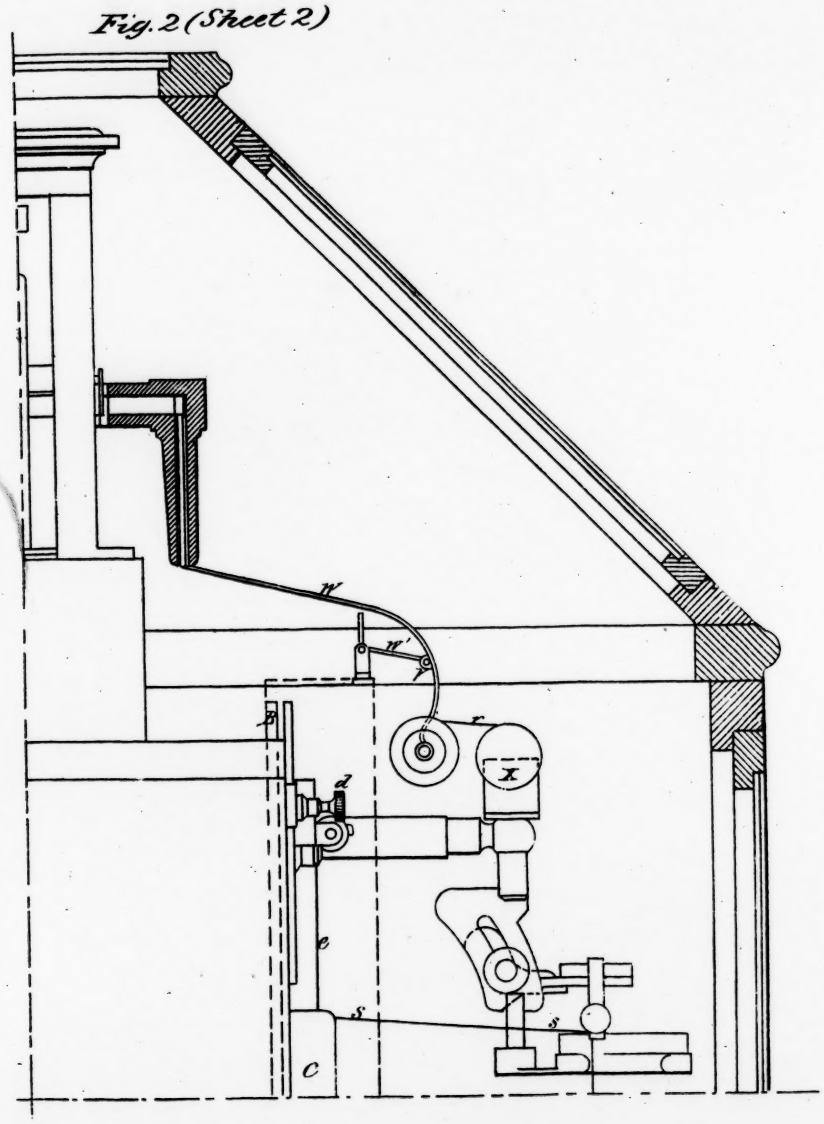
Electric-Telegraph Apparatus.

2607

No. 156,897. Patented Nov. 17, 1874.

Fig. 2 (Sheet 2)



WITNESSES

Wm. J. Peyton

Jos. L. Peyton.

INVENTOR

Wm. Thomson

By

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22 Sheets--Sheet 13.

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Electric-Telegraph Apparatus.

1608

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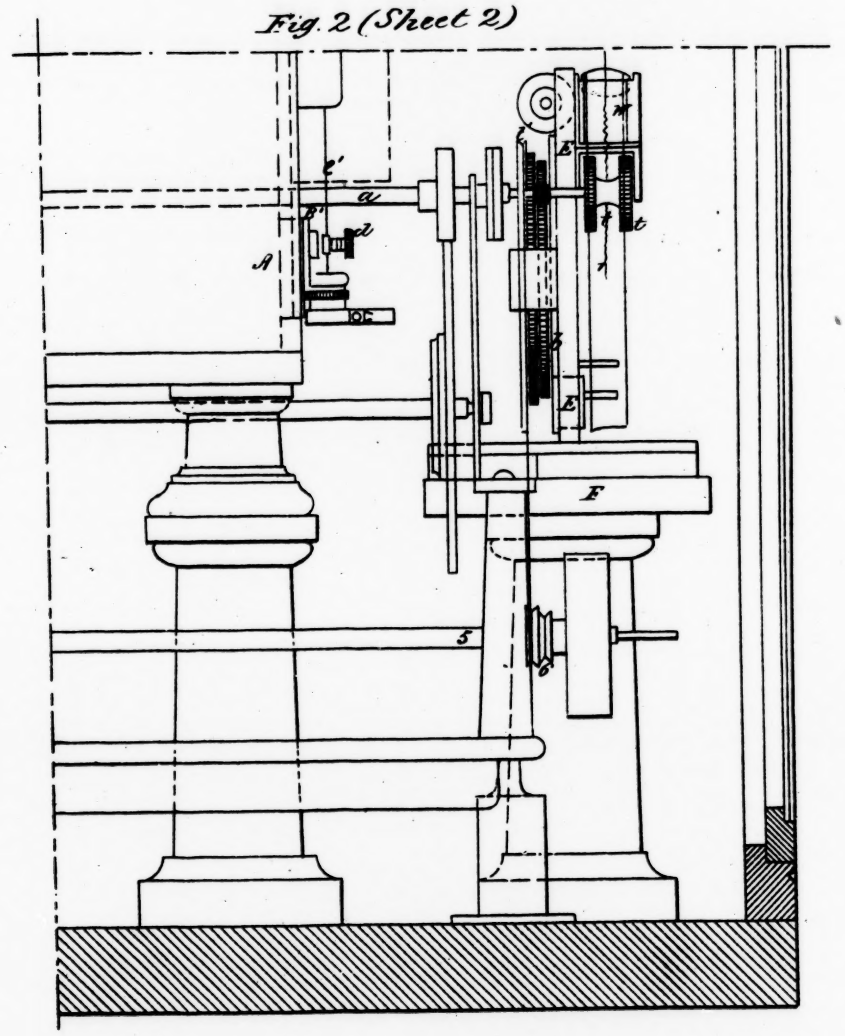
Fig. 2 (Sheet 2)



WITNESSES

Wm J Peyton.

Jos. L. Peyton.

INVENTOR

Wm Thomson

By Wm D. Baldwin, Jr. Attorney

[13]

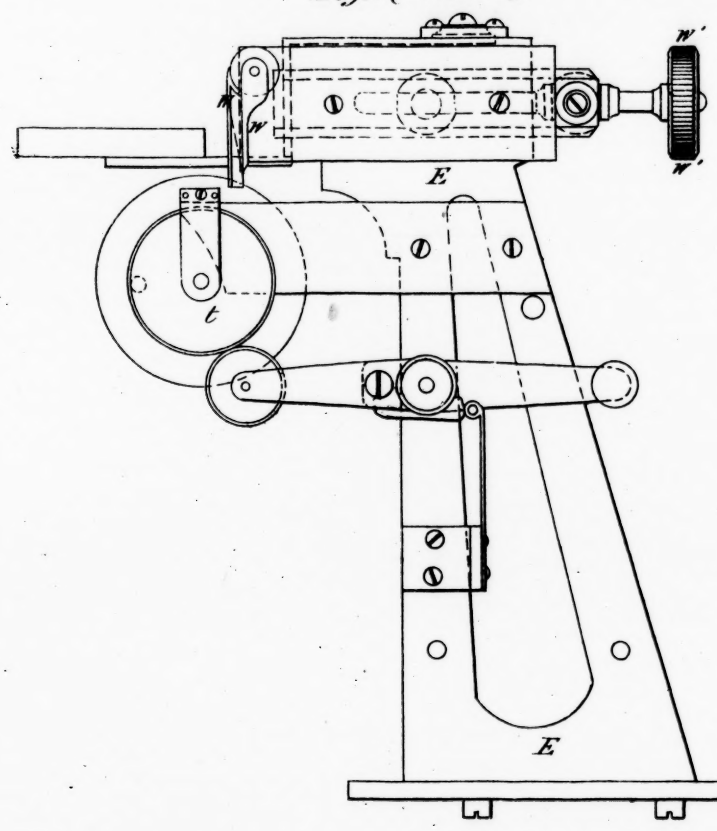
22 Sheets--Sheet 14.

W. THOMSON. 209

Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17, 1874.

Fig. 1 (Sheet 3)



WITNESSES

Wm J. Peyton.

Joe A. Peyton.

INVENTOR

Wm Thomson

By

Wm D. Baldwin, his Attorney

14

22 Sheets--Sheet 15.

W. THOMSON.

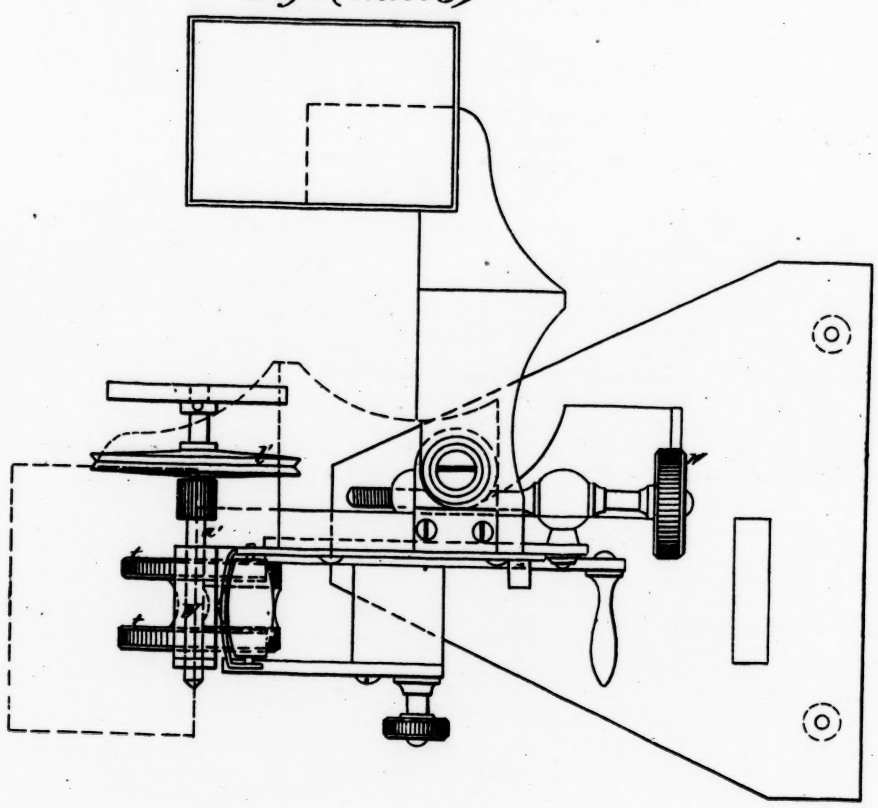
Electric-Telegraph Apparatus.

2,610

No. 156,897.

Patented Nov. 17, 1874.

Fig. 2 (Sheet 3)



WITNESSES

Wm. J. Peyton.

Geo. D. Peyton.

INVENTOR

Wm Thomson

By

Wm D. Baldwin his Attorney

15

22 Sheets--Sheet 16

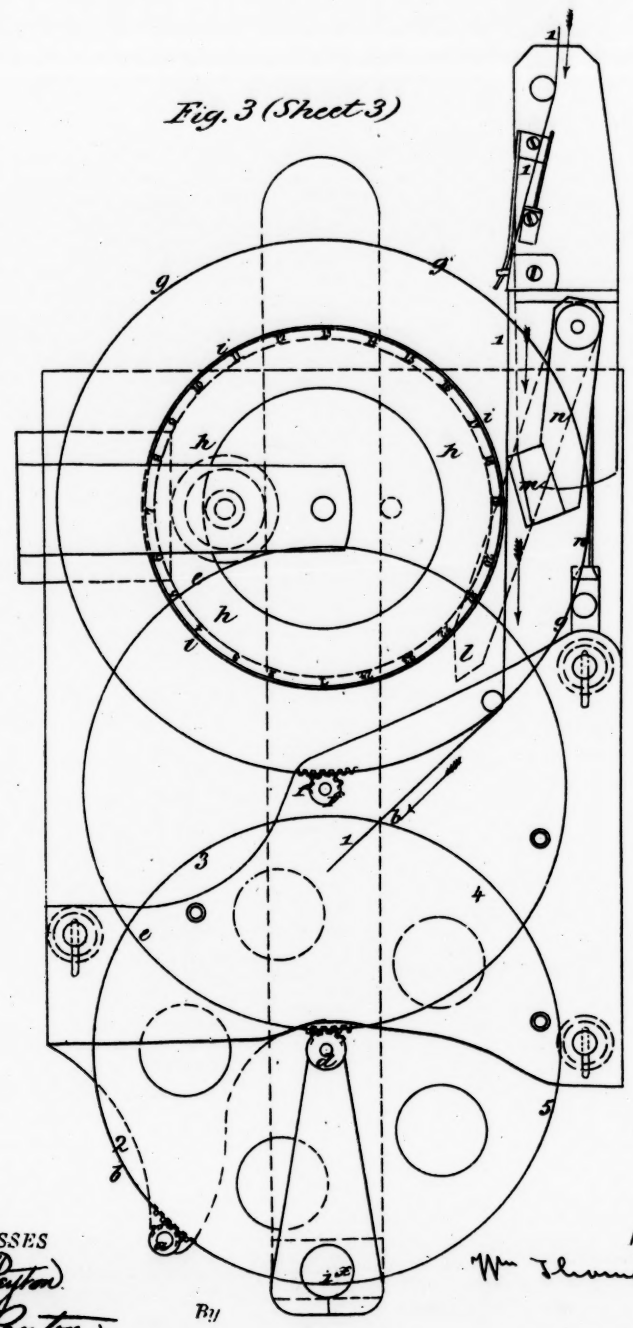
W. THOMSON.

Electric-Telegraph Apparatus.

2611

No. 156,897. Patented Nov. 17, 1874.

Fig. 3 (Sheet 3)



WITNESSES

Wm. J. Payton.

Joe. S. Peyton.

INVENTOR

Wm Thomson

By

Wm. Baldwin, Jr. Attorney

16

22 Sheets--Sheet 17.

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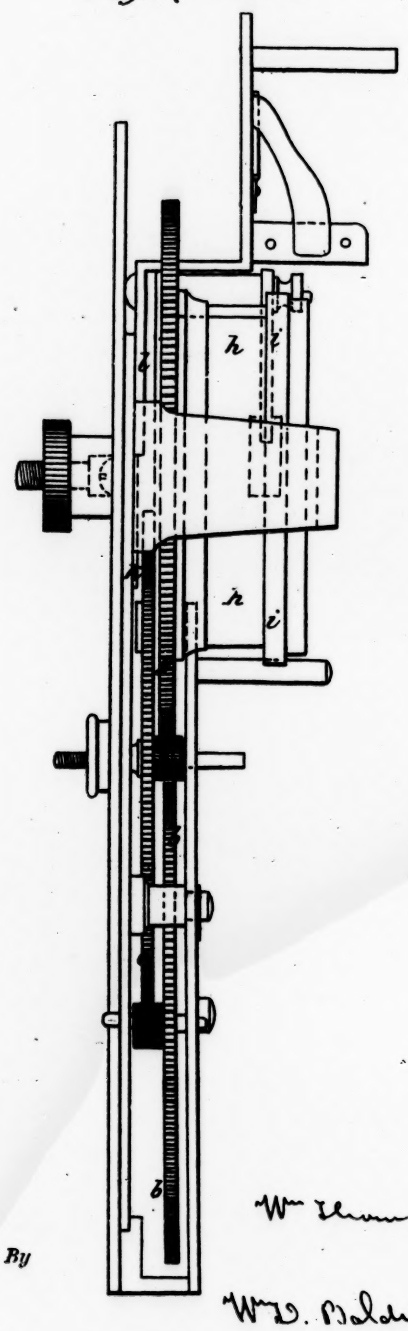
Electric-Telegraph Apparatus.

2612

No. 156,897. Patented Nov. 17, 1874.

Fig. 4 (Sheet 3)



WITNESSES

Wm. J. Peyton.

Jos. L. Peyton.

By

INVENTOR

Wm Thomson

Wm D. Baldwin, Jr. Attorney

22 Sheets--Sheet 18.

W. THOMSON.

Electric-Telegraph Apparatus.

2613

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Fig. 5 (Sheet 3)

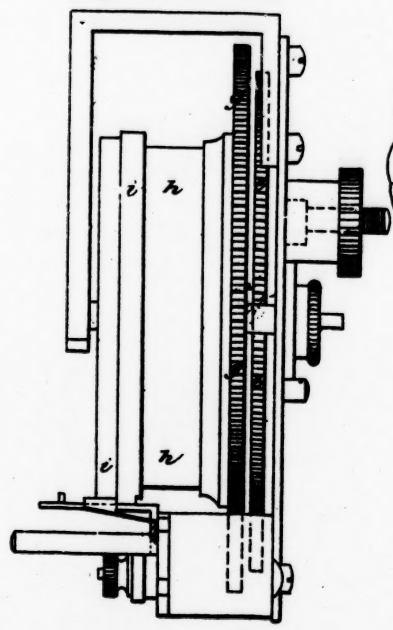


Diagram Fig. 8 (Sheet 3)

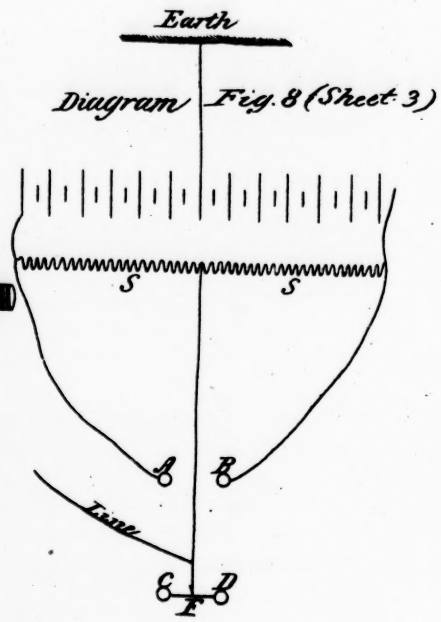
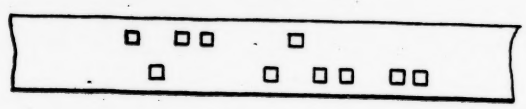


Diagram Fig. 9 (Sheet 3)



WITNESSES

Wm. J. Peyton.

Jas. S. Peyton.

INVENTOR

Wm Thomson

By

Wm D. Baldwin Jr. Attorney

18

22 Sheets--Sheet 19.

W. THOMSON.

Electric-Telegraph Apparatus.

2614

No. 156,897.

Patented Nov. 17, 1874.

Fig. 6 (Sheet 3)

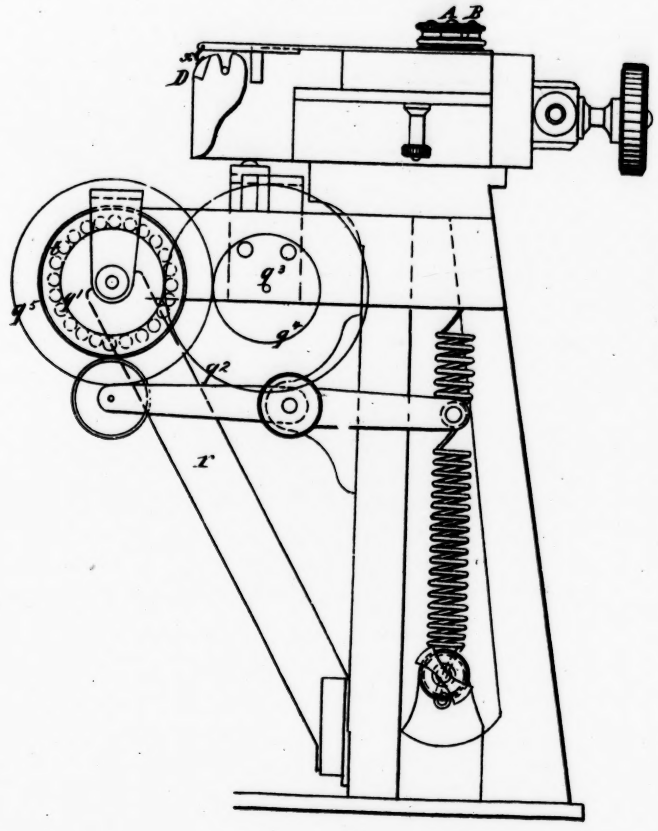
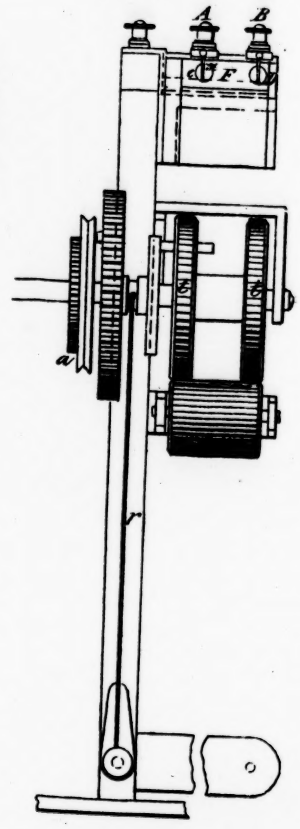


Fig. 7 (Sheet 3)



WITNESSES

Wm. J. Peyton.

Jos. L. Peyton.

INVENTOR.

Wm Thomson

By Wm D. Baldwin, his Attorney.

19

22 Sheets--Sheet 20.

W. THOMSON.

Electric-Telegraph Apparatus.

2615

No. 156,897. Patented Nov. 17, 1874.

Sheet. 4

Fig. 1

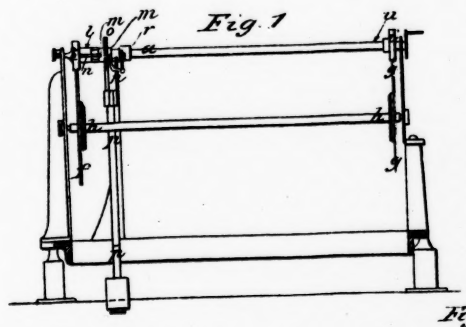


Fig. 4

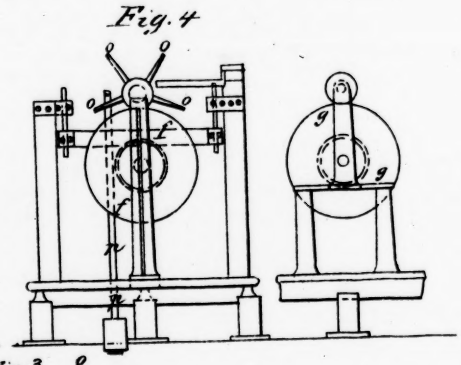


Fig. 3

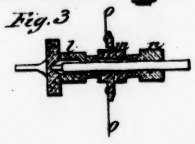
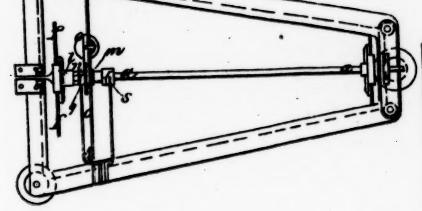
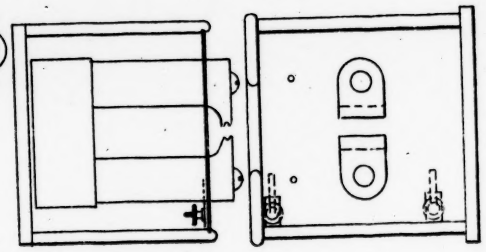


Fig. 2





WITNESSES

Wm J. Peyton.

Jas. A. Peyton.

INVENTOR.

Wm Thomson

By

Wm D. Baldwin, Jr. Attorney

210

22 Sheets--Sheet 21.

W. THOMSON.

Electric-Telegraph Apparatus.

2616

No. 156,897. Patented Nov. 17, 1874.

Sheet. 5

Fig. 1

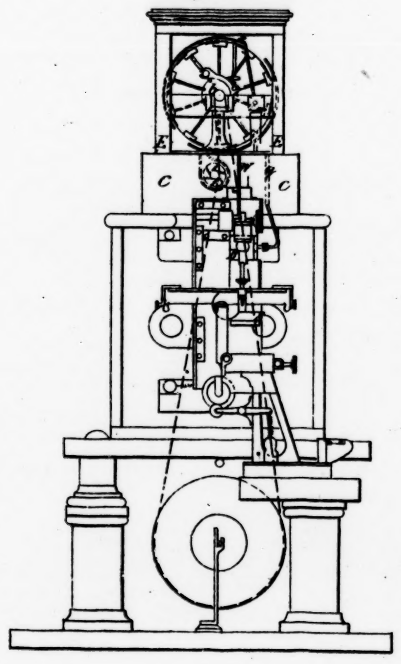
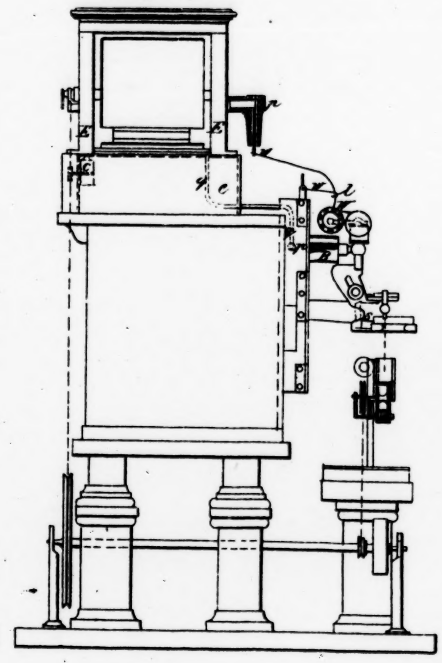


Fig. 2



WITNESSES

Wm. J. Peyton

Jos. L. Peyton.

INVENTOR

Wm Thomson

By

Wm. Baldwin, his Attorney

22 Sheets--Sheet 22.

W. THOMSON.

Electric-Telegraph Apparatus.

No. 156,897. Patented Nov. 17, 1874.

Sheet. 7

Fig. 1

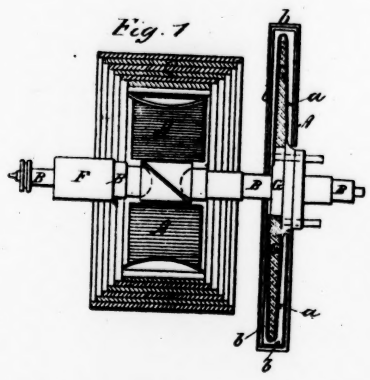


Fig. 2

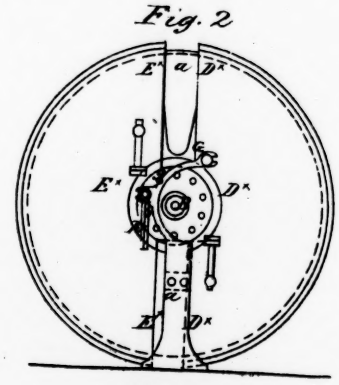


Fig. 3

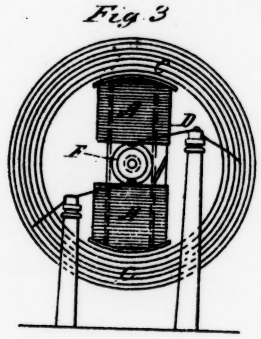
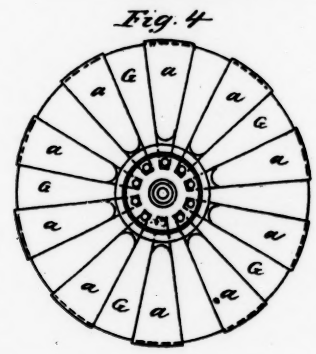


Fig. 4



WITNESSES

Wm. J. Payton

Jos. A. Payton.

INVENTOR

Wm Thomson

By Wm. Baldwin, his Attorney

A.D. 1875. MARCH 16. Nº 974.
JOHNSON'S COMPLETE SPECIFICATION.
(2nd Edition.)

FIG. 1.

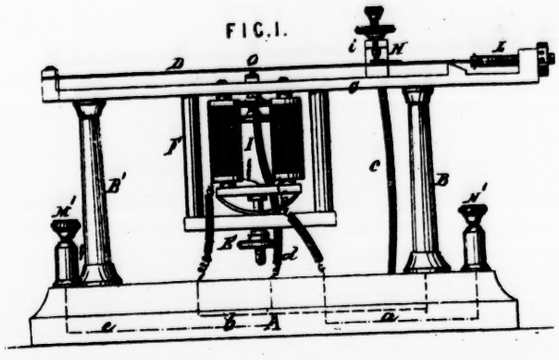


FIG. 3.

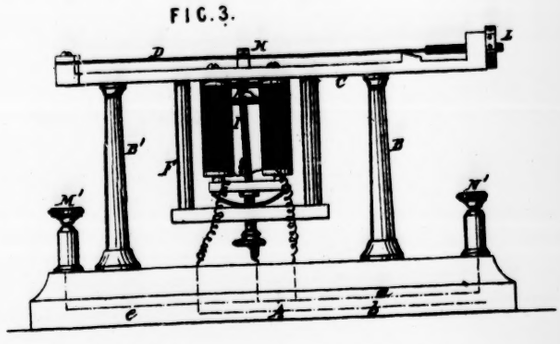
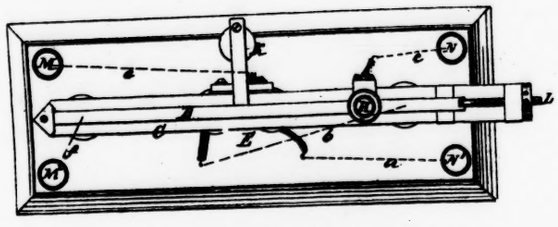


FIG. 2.



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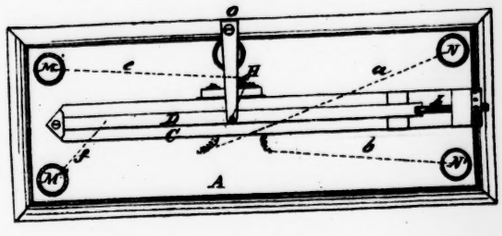
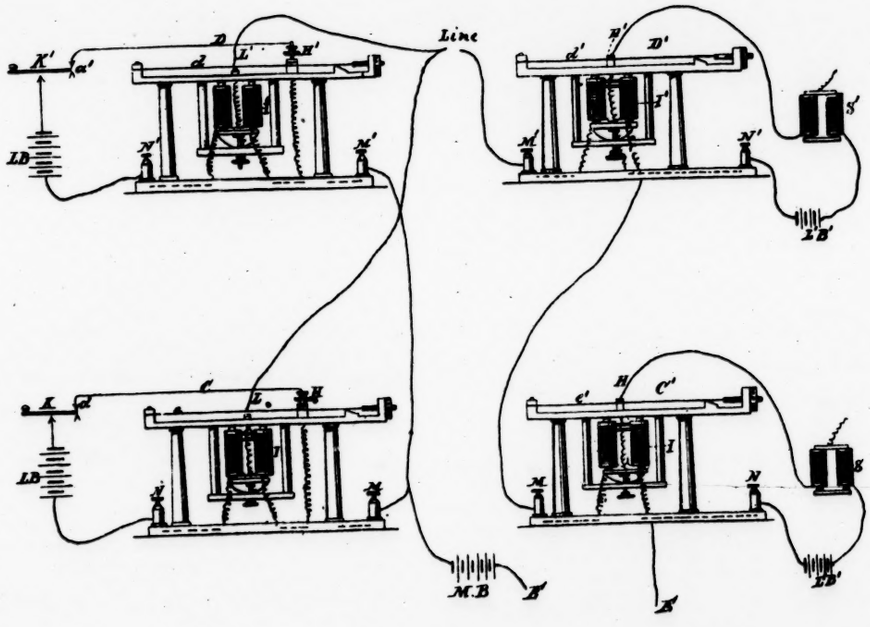


FIG. 5.



Malby & Sons, Photo-Lith.

LONDON: Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1881

{23}

A. D. 1863, JAN. 27. N° 241.
HUGHES' SPECIFICATION.

SHEET 1.
(3 SHEETS.)

FIG. 2.

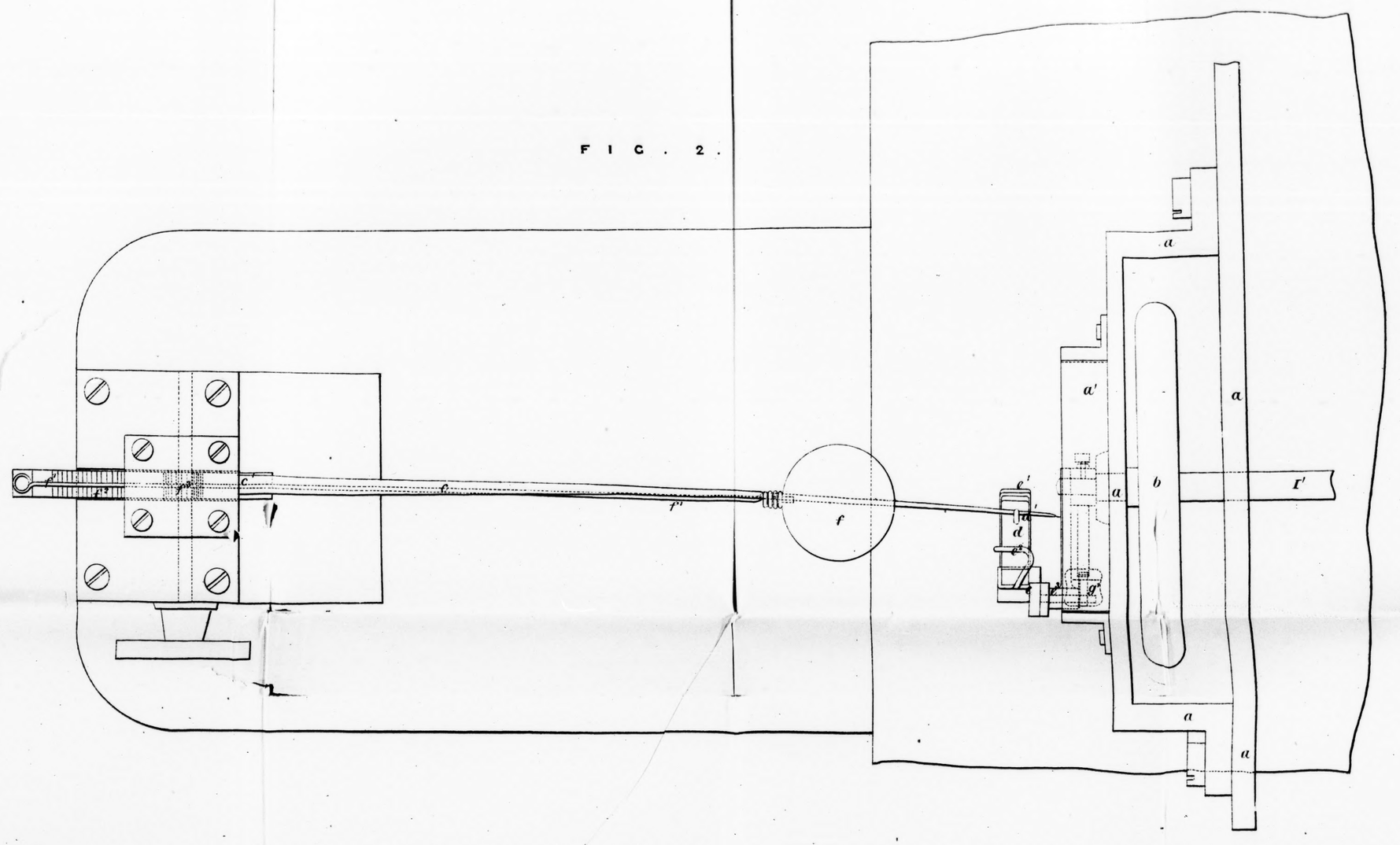
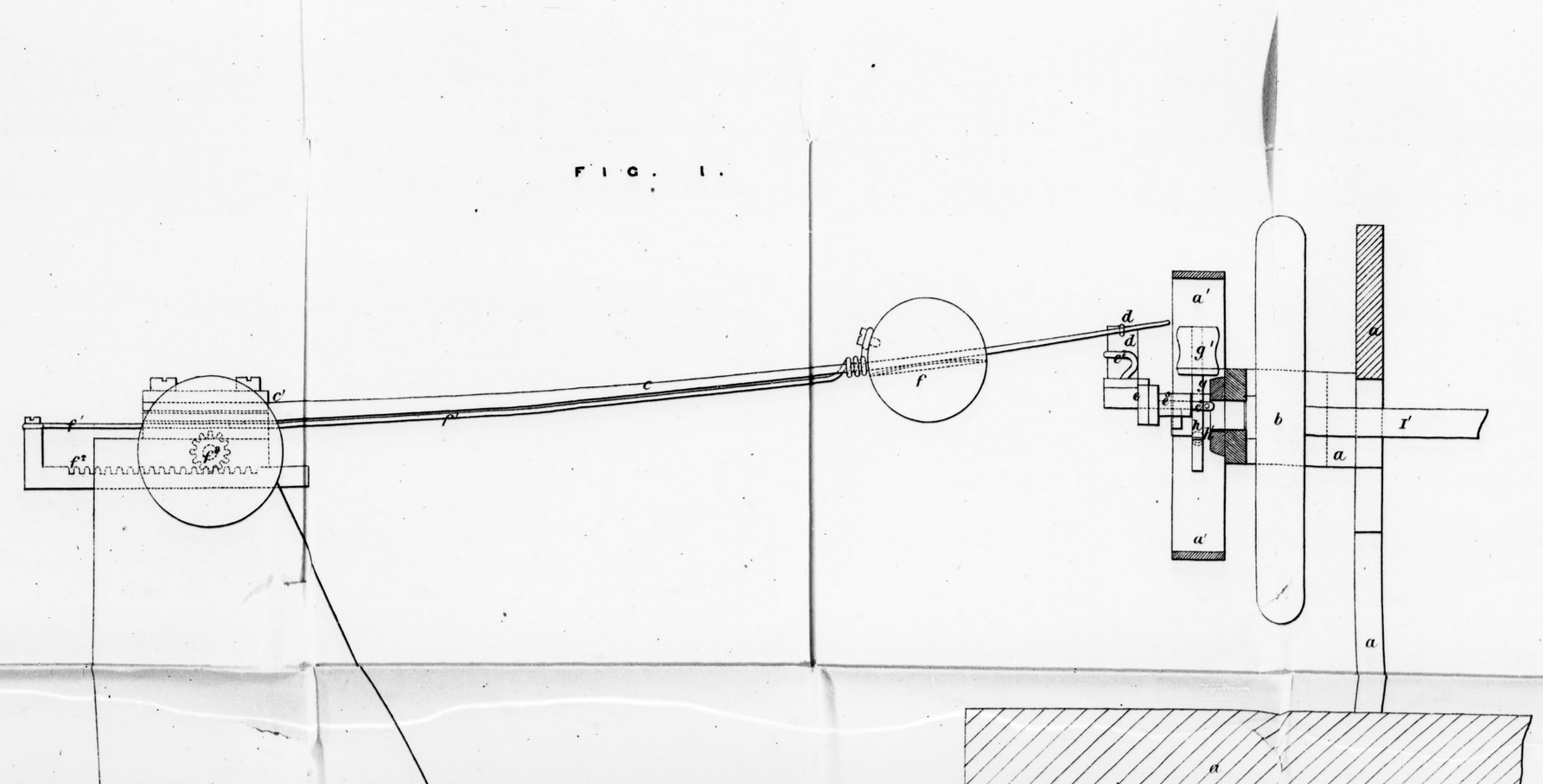
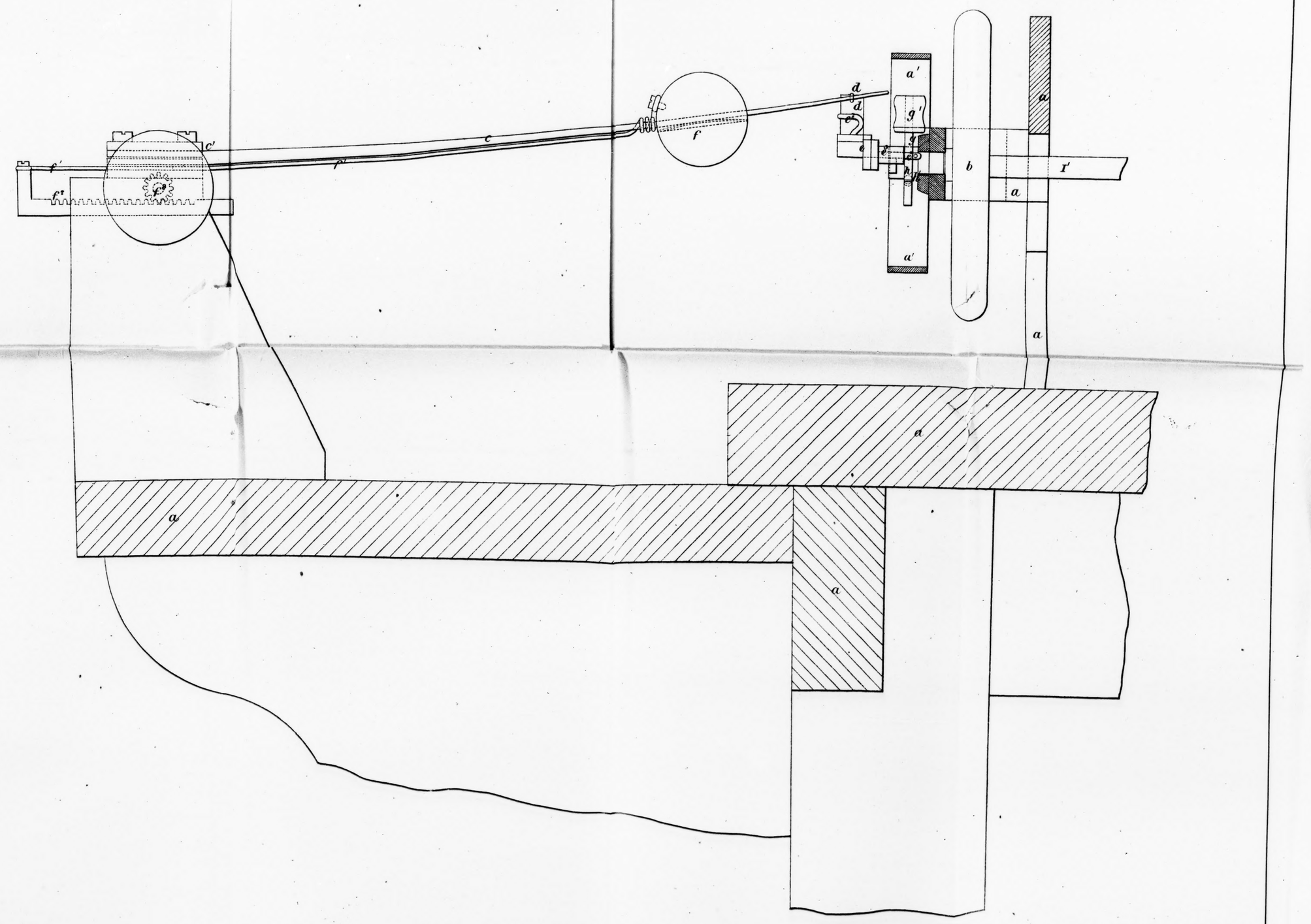


FIG. 1.



24

FIG. 1.



The Red drawing is not colored.

Drawn on Stone by Malby & Sons

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Printers to the Queen's most Excellent Majesty 1856.

24

A. D. 1863, JAN. 27, N° 241.
HUGHES' SPECIFICATION.

SHEET 2.
(3 SHEETS.)

FIG. 3.

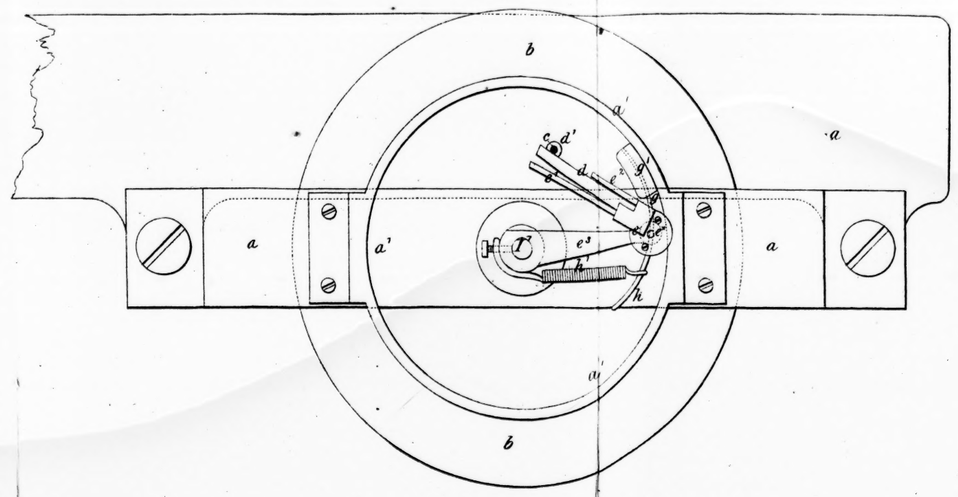


FIG. 4.

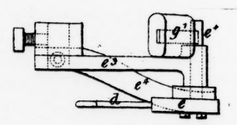


FIG. 5.

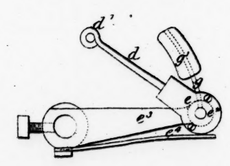


FIG. 11.

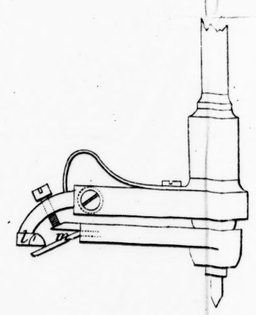


FIG. 12.

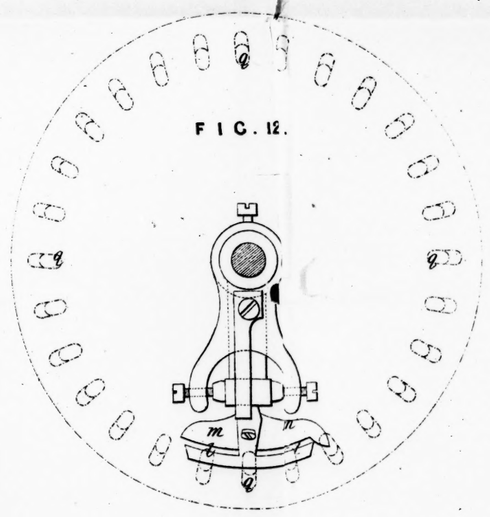


FIG. 6.

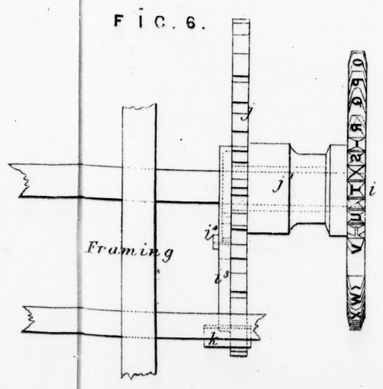
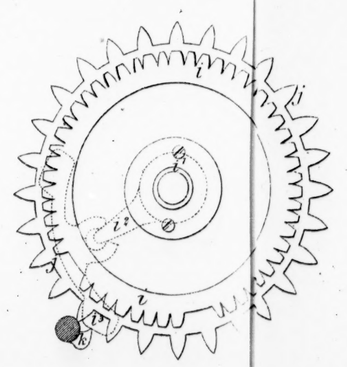


FIG. 7.



25

FIG. 4.

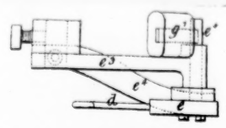


FIG. 5.

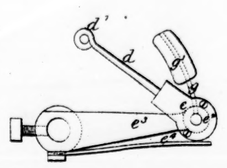
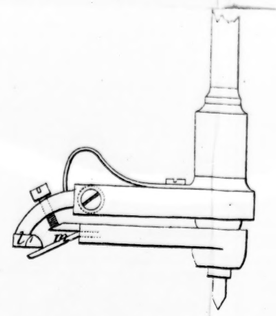


FIG. 11.



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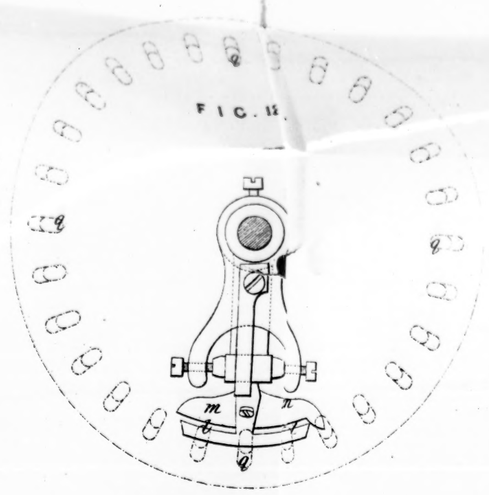


FIG. 6.

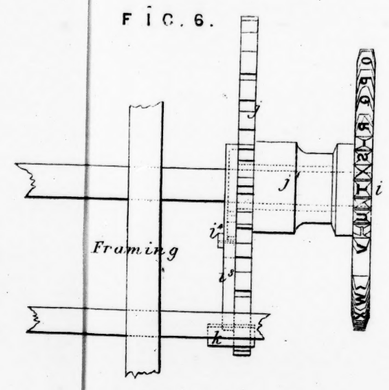


FIG. 7.

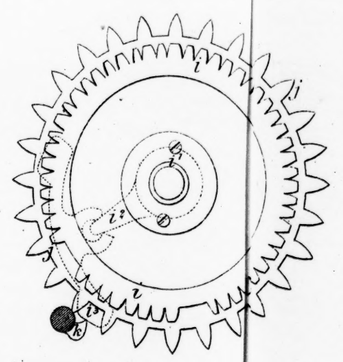


FIG. 9.

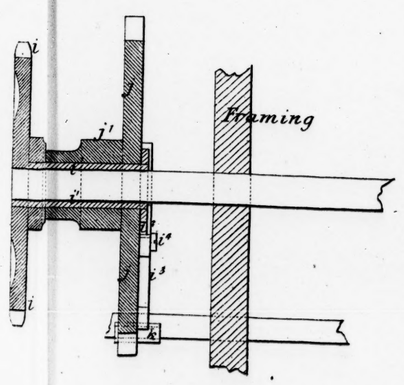
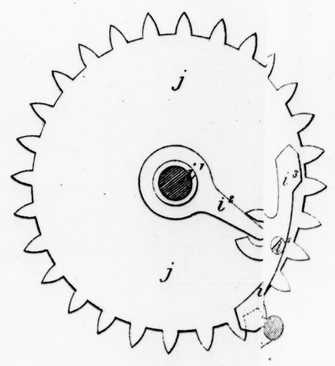


FIG. 8.



The filed drawing is partly colored.

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Printers to the Queen's most Excellent Majesty. 1863.

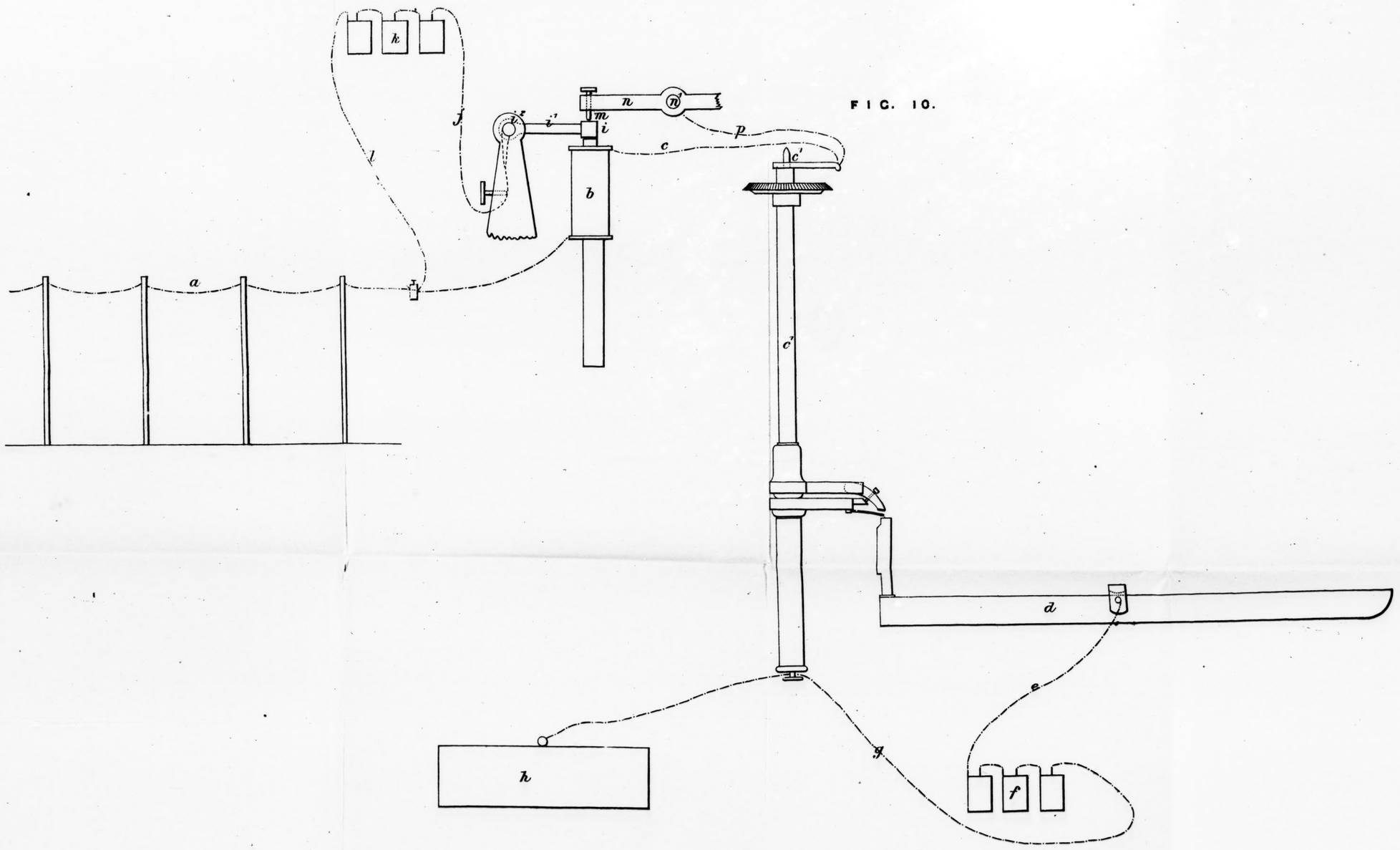
Drawn on Stone by Malby & Sons.

425

A.D. 1863, JAN. 27, N° 241.
HUGHES' SPECIFICATION.

SHEET 3.
(3 SHEETS.)

FIG. 10.



The filed drawing is partly colored.

Drawn on Stone by Malby & Sons.

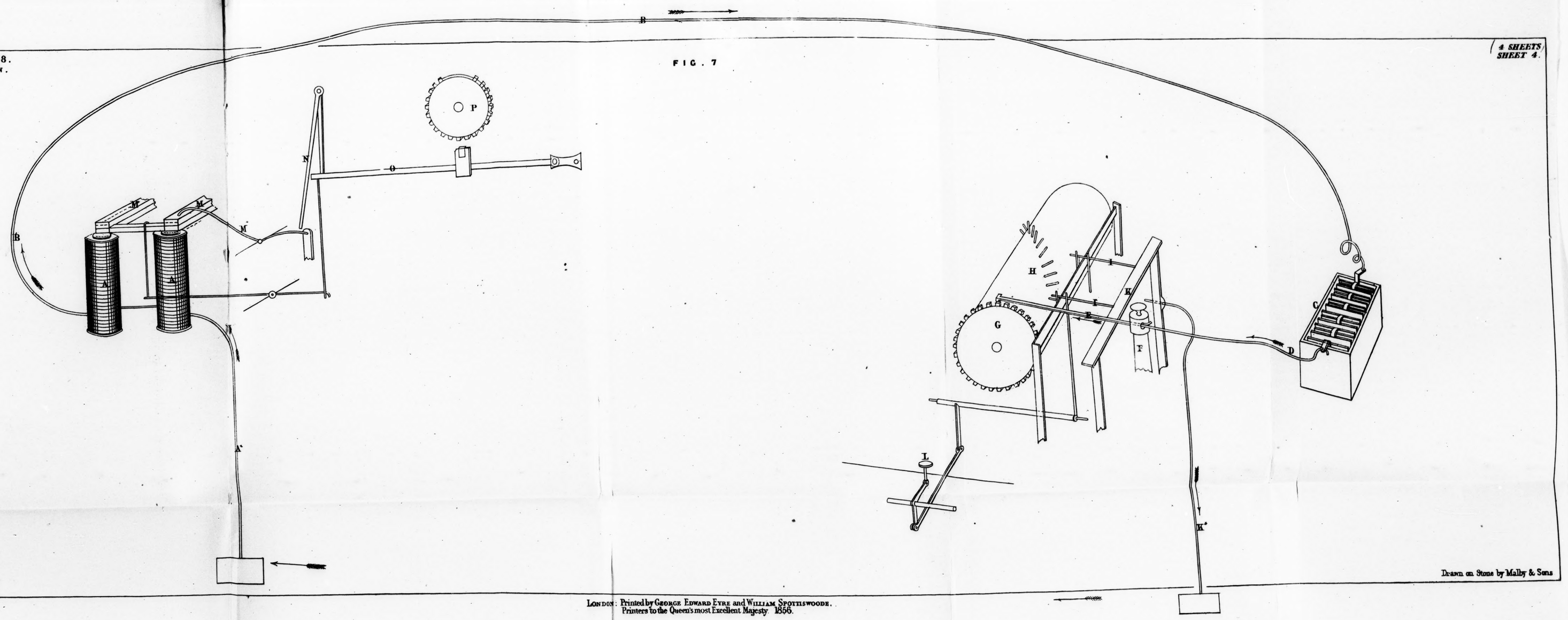
LONDON: Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE.
Printers to the Queen's most Excellent Majesty. 1863.

26

A.D. 1855. Sep. 11. Nº 2058.
KENNEDY'S Specification.

4 SHEETS
SHEET 4.

FIG. 7



The filed drawing is colored.

Drawn on Stone by Malby & Sons

London: Printed by George Edward Eyre and William Spottiswoode.
Printers to the Queen's most Excellent Majesty. 1856.

27

LONDON: Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1863.

The filed drawing is colored.

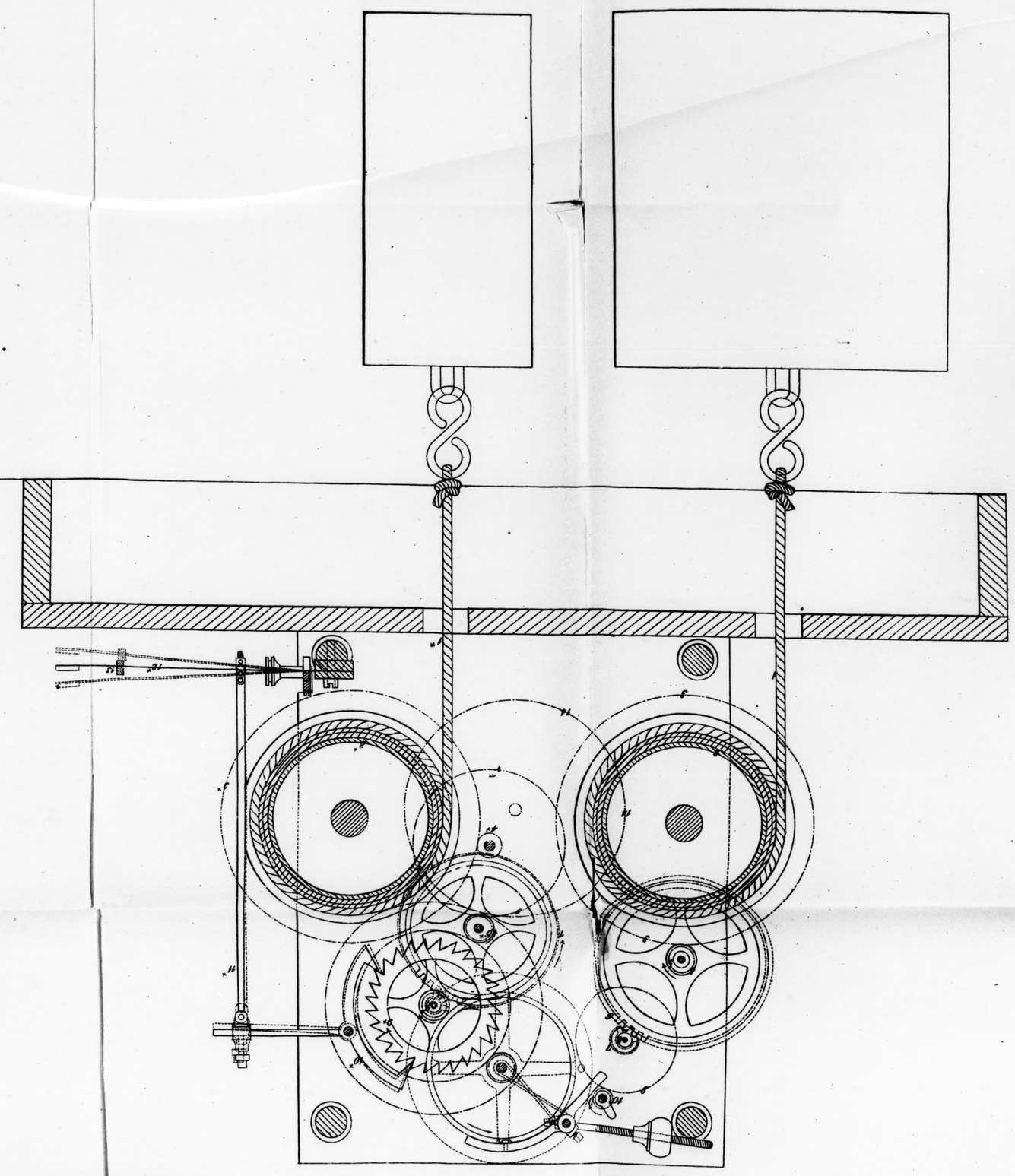


FIG. 4.

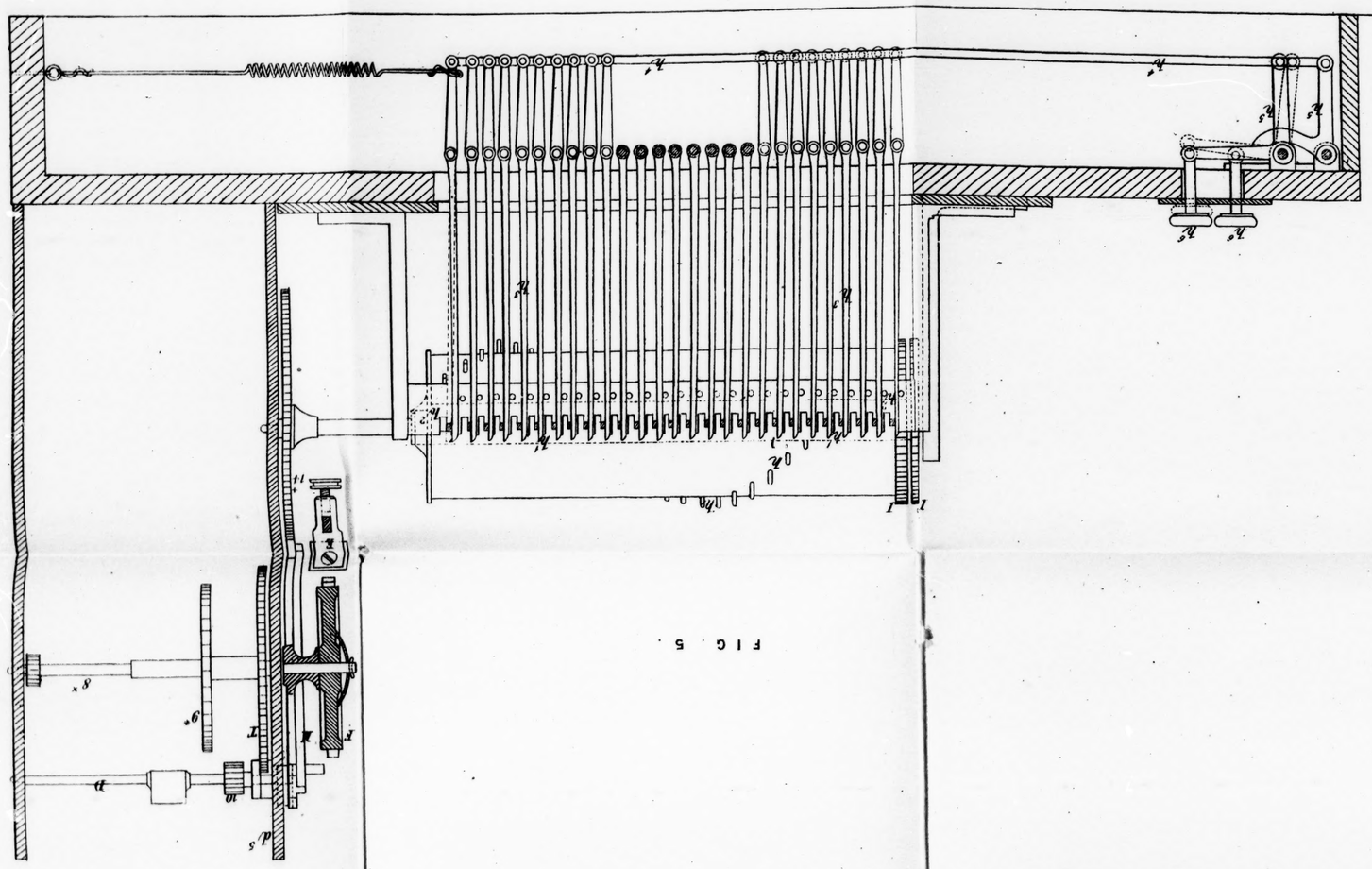


FIG. 5.

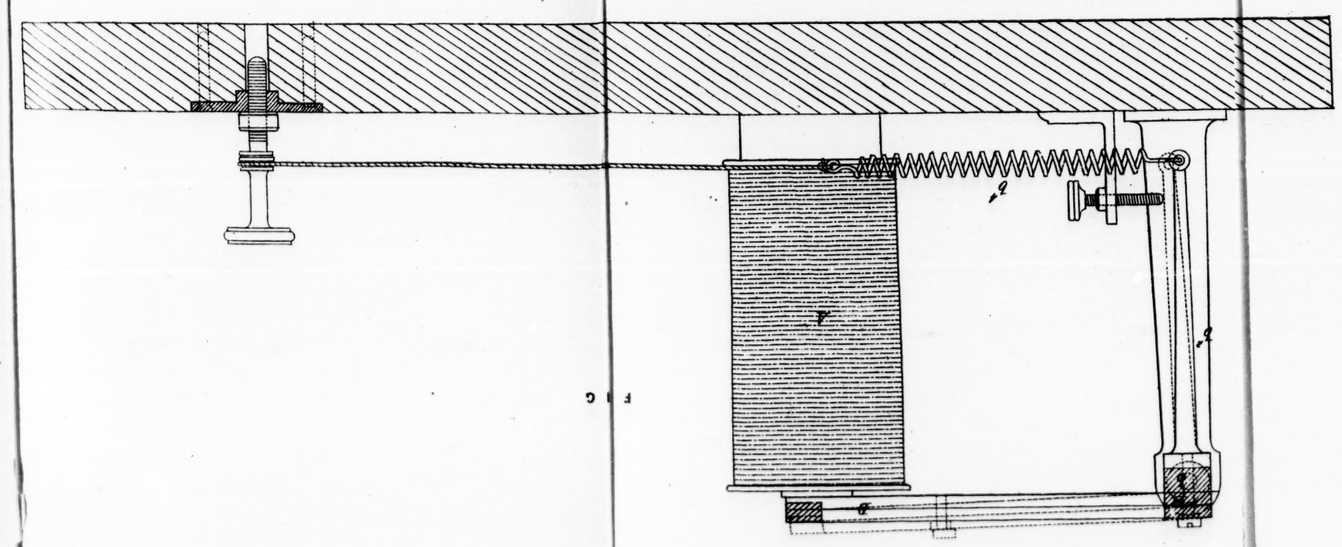


FIG.

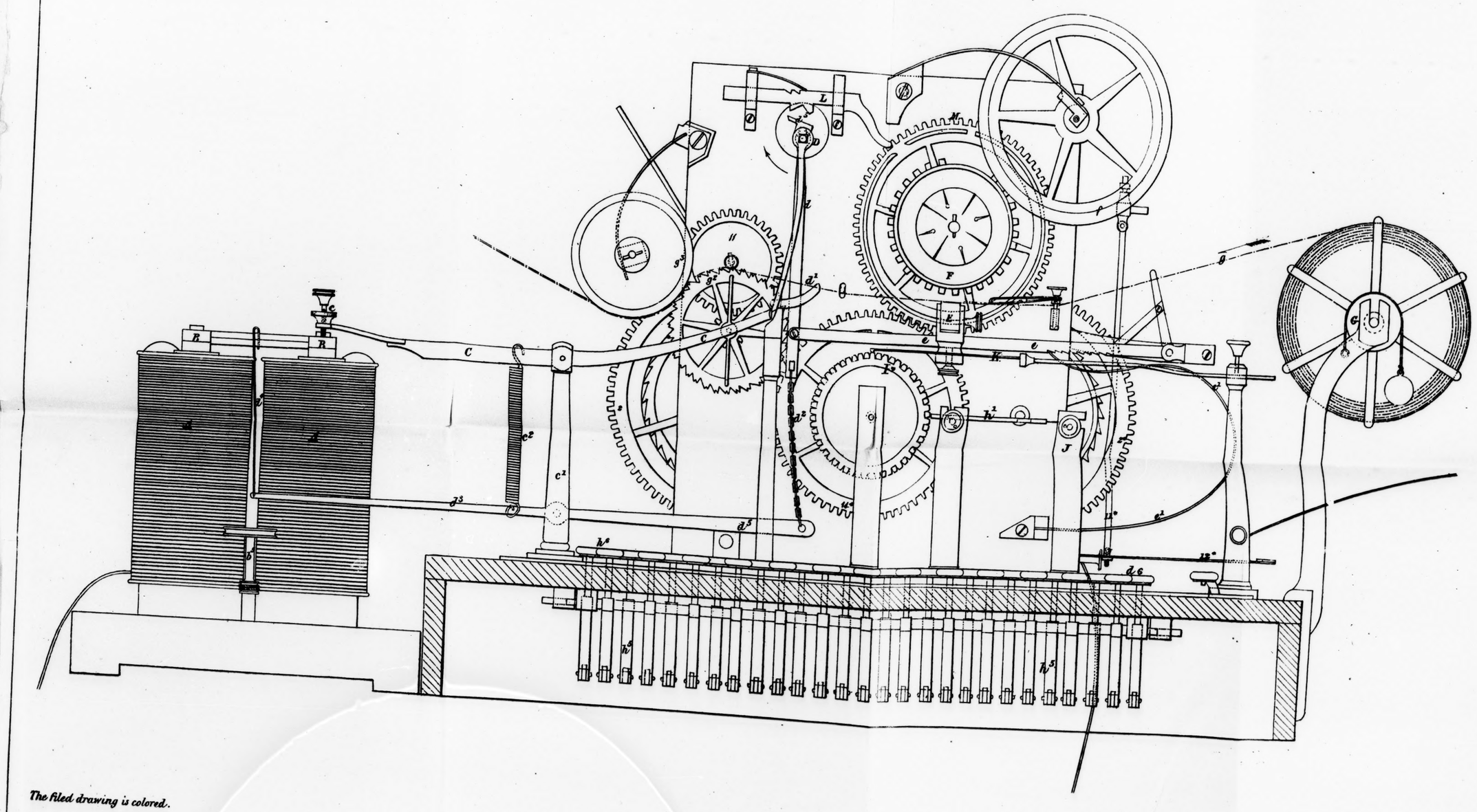
FIG. 6.

Drawn on Stone by Maltby & Sons.

A.D. 1863, SEP. 11. N° 2058.
KENNEDY'S SPECIFICATION.

(4 SHEETS)
SHEET 3.

FIG. 1.



The filed drawing is colored.

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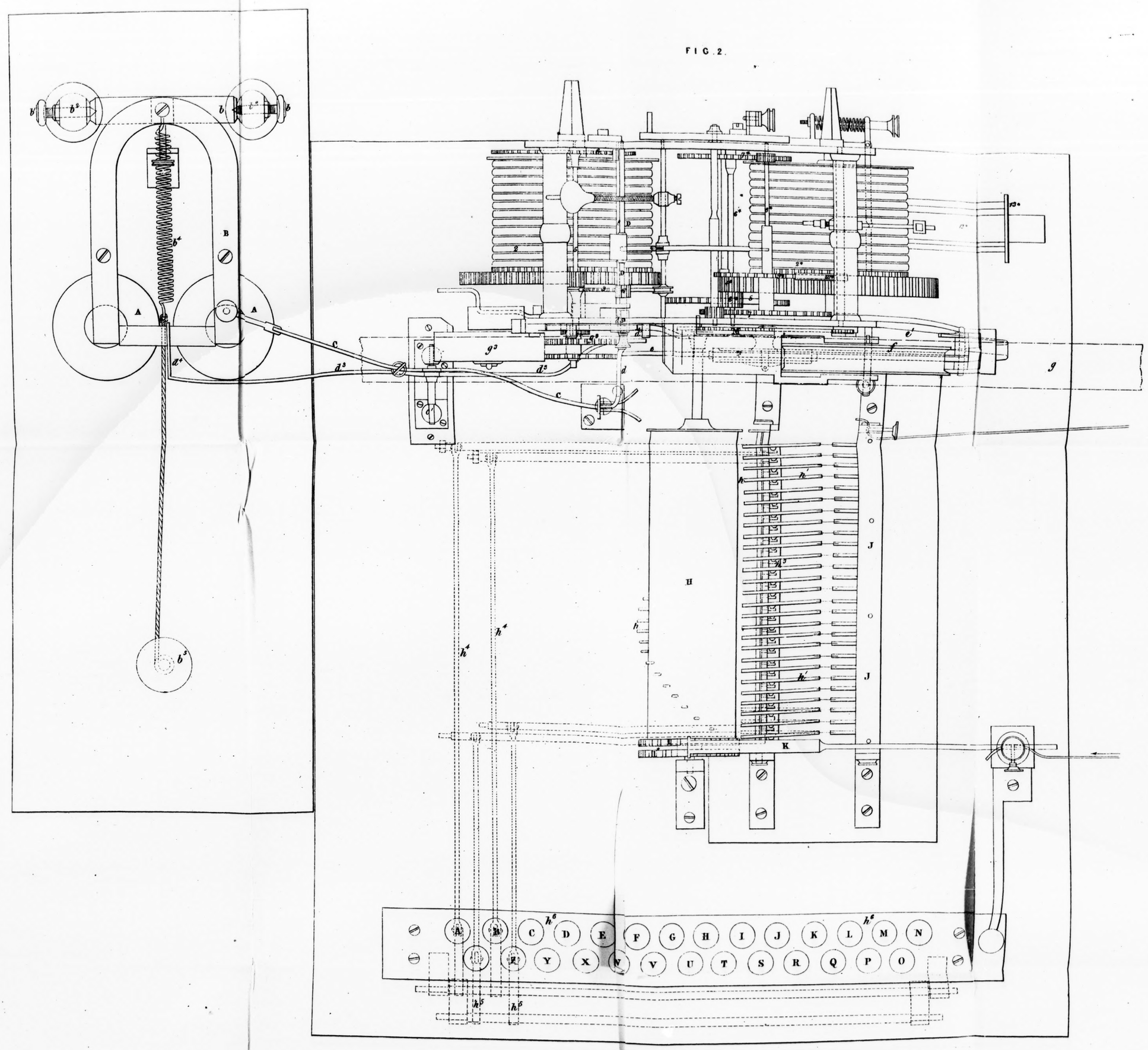
Printers to the Queen's most Excellent Majesty 1856.

Drawn on Stone by Malby & Sons.

[29]

FIG. 2.



The filed drawing is partly colored.

Drawn on Stone by Malby & Sons.

LONDON: Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE
Printers to the Queen's most Excellent Majesty. 1863.

[370]